



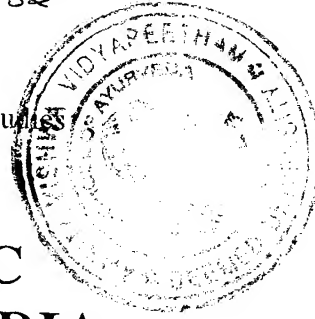
CHAUKHAMBA SANSKRIT PRATISTHAN
DELHI - 110007



EDIC
MEDIA

IOA 3782

Chaukhamba Ayurvijnan Studies
58



**AYURVEDIC
ENCYCLOPAEDIA**
PRACTICE OF AYURVEDA
(Volume II)

Dr. A. Lakshmipathi
B. A., M. B. & C. M., Bhishagratna
President, Board for Ayurveda, Hyderabad.



CHAUKHAMBA SANSKRIT PRATISHTHAN
DELHI

Published by

CHAUKHAMBA SANSKRIT PRATISHTHAN

38 U. A. Bungalow Road, Jawahar Nagar,
Post Box No. 2113, Delhi - 110007

First Edition : 2004

© Chaukhamba Sanskrit Pratishthan

ISBN : 81-7084-235-X (II)

: 81-7084-236-8 (Set)

Also available at

CHOWKHAMBA VIDYABHAWAN

Chowk, Post Box No. 1069
Varanasi - 221001

CHAUKHAMBA SURBHARATI PRAKASHAN

K-37/117, Gopal Mandir Lane,
Post Box No. 1129, Varanasi-221001

Type Setting by

Rama Graphic & Designs, New Delhi

Printed by

A. K. Lithographers, Delhi

CHAPTER CONTENTS

PART I : PANCHAKARMA

1. Summary of Ayurvedic Treatment
2. Other Purificatory Measures in Ayurveda
3. General Survey of Ayurvedic Treatment
4. The Ayurvedic Pharmacology (Rasa, Virya, Vipaka etc. in Ayurveda) ... 133

PART II : MIDWIFERY & SURGERY IN AYURVEDA

1. Midwifery in Ayurveda ... 1
2. A Comprehensive and Straight Forward Analysis of "A Healthy Progeny" in Ayurveda ... 22
3. Surgery in Ayurveda ... 102
4. (Neuro) Brain Surgery in Ayurveda ... 128

PART III : DIAGNOSIS IN AYURVEDA

1. The Importance of Diagnosis ... 1
2. Nidana—Cause of Disease ... 7
3. Purva Rupa ... 16
4. Rupa ... 20
5. Upasaya—Diagnosis by Experimental Treatment ... 23
6. Samprapti ... 28
7. Ashta Sthana Pariksha ... 31
8. Nadi—Pulse ... 34
9. Mutra Pariksha (Examination of Urine) ... 54
10. Mala Pariksha (Examination of Stools) ... 67
11. Jihva—The Tongue ... 69

12.	Sound (Sabda)—Examination of Voice (Sabda Pariksha)	...	72
13.	Sparsa—The Sense of Touch	...	73
14.	Druk—Eyes	...	76
15.	Akriti—General Condition and Appearance	...	78
16.	Examination of the Patient (Rogi Pariksha)	...	87
17.	Arishtas—Symptoms Foreboding Death	...	119

PART IV : TREATMENT IN AYURVEDA

1.	Jwara (Fevers)	...	131
2.	Modern Conception of Fever and its Ayurvedic Survey	...	210
3.	Ama and its Importance	...	221

AYURVEDIC ENCYCLOPAEDIA

PART I : PRACTICE OF AYURVEDA

CHAPTER I

PANCHAKARMAS

(The Five Medical Operations in Ayurveda)

1.	Summary of Ayurvedic Treatment	...	1
	Shad Upakarmas (Six Methods of Treatment)	...	2
2.	Definition of Pancha Karmas	...	4
	Sushruta includes Rakta Mokshana	...	5
	Snehakarma and Swedakarma	...	5
	Systematic Treatment by Panchakarmas neglected	...	7
3.	Brimhana Treatment (Promoting Growth)	...	7
	Brimhana Substances	...	7
	Persons Fit for Brimhanam	...	8
	Disadvantages of Excessive Brimhana Treatment	...	8
	Antidotes for Excessive Brimhana Treatment	...	8
	General Remarks	...	9
4.	Langhana Treatment (Effecting Reduction)	...	10
	Langhana Substances or Measures	...	10
	Varieties of Langhana	...	11
	Persons fit for Sodhana Langhana	...	12
	Pachana—Digestive	...	12
	Pipasa Nigraha	...	12
	Vyayama and Marutha Treatment	...	12
	Langhana—Upavasa—Actual Fasting	...	13
	Uses of Langhana Treatment	...	13
	Results of Proper Langhana	...	13
	Results of Excessive Langhana	...	14
	Antidotes for Excessive Langhana	...	14

5. Sneha Chikitsa (Lubrication Treatment)	...	14
Varieties of Sneha	...	15
Dose of Snehas	...	17
Unfit for Sneha	...	18
Diet in Sneha Karma	...	18
Good Results for Sneha Pana	...	20
6. Rukshana Karma (Drying Operation)	...	21
Definition of Rukshana	...	21
Substances Conducive to Rukshana	...	21
Persons Fit for Rukshana Karma	...	22
Persons Fit for Rukshana	...	22
Symptoms of Proper and Improper Rukshana	...	22
Sneha, Sweda and Rukshana Sweda Karmas	...	23
Snigdha and Ruksha Vasti	...	22
Snigdha and Rukshana Virechana	...	23
Snigdha and Rukshana Vamana	...	23
Snigdha and Ruksha Nasya	...	24
General Remarks	...	24
7. Sweda Karma (Sweating Treatment)	...	24
Varieties of Sweda Karma	...	25
Thirteen Forms of Sweda Karma	...	27
Sushruta's Classification of Sweda Karmas	...	33
Usefulness of Various Swedakarmas	...	33
in Various Doshas	...	33
Niragni Sweda Karma (Sweating without Fire)	...	33
Delicate Parts	...	33
Dangers of Excess of Sweda Karma	...	34
Diseases where Swedakarma is Useful	...	34
Conditions where Swedakarma is Forbidden	...	35
Time or Place of Swedakarma	...	35
Importance of Sweda and Sneha in Chronic Diseases	...	36

8. Vamana Karma (Treatment by Emetics)	...	39
Emetics and Purgative by Mere Smell	...	39
Definition	...	40
Unfit for Emetics	...	40
Difference between Administration of		
Emetic and Vamana Karmas	...	41
The Necessity for Sneha and Sweda Karmas	...	42
Procedure	...	43
Selection of the Emetic	...	44
Drugs Advocated for Vamana Karma	...	44
Emetic to be Unpleasant and Purgative		
to be Pleasant	...	44
How does the Emetic Act ?	...	47
Excessive Use of the Emetic	...	48
Ayoga – Insufficient Dose of Emetic	...	48
Dhumapana after Emetic	...	48
Diet after Emetic	...	49
Diseases Fit for Vamana Karma	...	50
Diseases Unfit for Vamana Karma	...	51
Things to Avoid	...	52
Emetic in Rasayana Treatment	...	52
Vamana Treatment now out of Fashion	...	52
9. Sthambhana Karma (Treatment of Contraction)	...	53
Definitions	...	53
Things Used for Causing Sthambhanam	...	53
Persons Fit for Sthambhana Treatment	...	54
Symptoms for Proper Sthambhana Treatment	...	54
Symptoms of Excessive Sthambhana Treatment	...	54
General Conclusions	...	54
10. Virechana Karma (Administration of Purgatives)	...	55

Persons Suitable for Virechana Karma	...	55
Drugs Used as Purgatives	...	55
Mode of Administration	...	55
Three Kinds of Koshtas (Bowels)	...	55
Results of Proper and Improper Virechana	...	56
Diet	...	57
Conditions Suitable for Virechana	...	57
Conditions Unsuitable for Virechana	...	57
Virechana Treatment Now Out of Fashion	...	58
Disorders Resulting from Improper Administration of Vamana and Virechana Karmas	...	58
11. Vamana Virechana Vyapatti	...	59
Ineffective Vamanakarma	...	59
Ineffective Virechana Karma	...	59
Obstruction to Vomiting and Purging	...	60
Symptoms of Excessive Virechana and Vamana	...	60
12. Vasti Karma (Treatment by Enemata)	...	61
Importance of Vasti Karma	...	62
Varieties of Vasti Karmas	...	63
Anuvasana Vasti	...	63
Niruha Vasti	...	66
Uttara Vasti	...	71
13. Nasya Karma	...	73
The Importance of Nasya Karmas	...	73
Varieties of Nasya Karma	...	76
Avapidana Nasya	...	77
Pradhamana Nasya	...	77
Brimhana Nasya	...	77
Samana Nasya	...	78
Unfit for Nasya Karma	...	79

CHAPTER II

OTHER PURIFICATORY MEASURES IN AYURVEDA

1. Dhumapana Vidhi	...	81
Unfit for Dhumapana	...	82
Fit For Dhumapana	...	82
Disadvantages of Excess	...	83
Procedure	...	83
Drugs Used for Dhumapana	...	83
Diseases in which Dhumapana is Useful	...	84
2. Rakta Srava—Blood Letting	...	84
3. Gandusha and Kavala Guraha	...	84
Drugs Used for Gandusha	...	85
Fit for Kavalagraha	...	86
4. Minor Operations (Murdha Taila, Aschotana, Anjana, Tarpana, Putapaka, Seka, Pindika, and Bidalaka)	...	86
Bahih Parimarjanam (External Cleaning)	...	91
Prameha	...	91

CHAPTER III

GENERAL SURVEY OF AYURVEDIC TREATMENT

1. The Human Body	...	95
The Three Dhatus (Nutrients)	...	95
Sapta Dhatus	...	96
The Three Malas	...	96
Channels (Srotasas)	...	97
2. What is Disease?	...	98
3. The Object of Medical Treatment	...	100
The Three States in which the Doshas Exist	...	101
Elimination of Vriddha Doshas	...	101

4. Classification of Mental Diseases	... 103
5. Classification of Bodily Diseases	... 105
Manifoldness of Diseases	... 106
Oneness of Disease and Oneness of Treatment	... 106
6. Investigation of Disease	... 107
Determination of Prognosis	... 103
7. Line of Treatment	... 109
Sodhana Prohibited in Sama Conditions	... 113
8. Methods of Treatment	... 115
Daivavyapasraya Treatment	... 116
Yuktivyapasraya Treatment	... 120
Satwavyajaya Treatment	... 121
Dosha Pratyanka Chikitsa	... 122
Sneha and Sweda Karmas	... 122
9. Treatment of Diseases of the Vata Type	... 123
10. Treatment of Diseases of the Pitta Type	... 124
11. Treatment of Diseases of the Kapha Type	... 125
12. Important Drugs	... 126
13. Summary	... 130

CHAPTER IV

THE AYURVEDIC PHARMACOLOGY

(Rasa, Virya, Vipaka, etc. in Ayurveda)

The Prithivi State	... 133
Ap State	... 134
The Agni State	... 135
Vayu State	... 135
Akasa State	... 135
The Six Rasas	... 135
Madhura Rasa—Identification	... 137

Properties of Madhura Rasa	... 137
Amla Rasa—Identification and Properties	... 137
Identification of Lavana Rasa and its Properties	... 138
Identification and Properties of Katu Rasa (Pungent Taste)	... 138
Identification and Properties of Tikta Rasa (Bitter Taste)	... 139
Identification and Properties of Kashaya Rasa	... 139
Relationship to Doshas to Rasas	... 140
Examples of Dravyas Containing Six Rasas	... 143
Vyakta Rasa and Anu Rasa	... 144
Rasa Dosha Sannipatha	... 145
Rasakalpana and Doshakalpana	... 147
General and Special Combinations of Rasas and Doshas	... 149
Pithara Paka	... 149
Pilu Paka	... 150
Prakriti Sama Samavaya	... 150
Vikriti Vishama Samavaya	... 150
Four Categories of Powers	... 153
The Importance of Vipaka, Virya and Prabhava	... 155
Vipaka	... 156
Virya	... 158
Prabhava	... 159
Aptavakya—Acknowledged Testimony	... 160

PART II : MIDWIFERY AND SURGERY IN AYURVEDA

CHAPTER I

MIDWIFERY IN AYURVEDA

1. Past History	...	1
Nurses Mentioned in Vedas	...	1
Dhatri and Dayi	...	2
Four Nurses to One Child Birth	...	2
An Art can be Learnt even by the Illiterate	...	3
Midwifery—A Traditional Art	...	3
Maternity Home	...	4
The Qualities of a Nurse	...	5
Conducting Normal Labour	...	5
Antiseptics in Ayurveda	...	7
Foetal Position and Presentations	...	8
Fundamental Principles of Midwifery	...	8
Mental Approach—Superiority of Ayurveda	...	9
2. Present Practice	...	10
Child Births in a Harijan Colony	...	10
Dislike for Maternity Homes	...	12
Kayam—Confections	...	12
Modern Hospital — The Last Resort	...	13
3. The New Scheme	...	13
Syllabus and Duration of the Course and		
Registration	...	15
Teaching Equipment of “Dayis”	...	15
Contents of the kits	...	16
Encouragement of “Dayis”	...	16
The Work Before Us	...	17
Upgrading of the Dayis	...	17
The Duty of the Ayurvedic Physician	...	18

Recommendations of the Committee	...	19
Financial Implications	...	20
Personal Appeal	...	21

CHAPTER II

A HEALTHY PROGENY IN AYURVEDA

Meeting Vital Problems of Healthy Progeny	...	22
A Man with (Satsanthanam) – Good Progeny	...	24
A Man without Children	...	24
Selection of Better Half (Field for Action)	...	24
Four and Five Factors of Conception	...	26
What is Bijam (Seed)	...	27
Pure Semen (Suddha Sukra Lakshanam)	...	28
Why Semen is not Found in Children	...	28
The Development of Sukra Dhatu (Semen)	...	29
Why the Semen gets Exhausted	...	33
Klibatwam (Varieties of Impotence)	...	35
General Symptoms	...	35
Hethu and Symptoms in Bijapaghataja Killbyam	...	35
Nidana of Dwajabhanga	...	36
Symptoms of Dwajabhanga	...	37
Impotence Which Arises due to Jara Sambhavam	...	37
Impotence Due to Waste or Abuse (Sukra Kshayajam)	...	38
Prognosis	...	39
Treatment in Brief of Impotence	...	39
Treatment in Detail (Visesha) of Impotence	...	40
Treatment of Impotence Due to Dhvajabhanga	...	40
Treatment of Impotence Due to Senile Decay and		
Waste (Jarsambhavaja)	...	40
Various Vajikarana Remedies for Sexual Incapacity	...	41

Etiology and Symptoms of Eight Defects of Vitiated Semen	...	42
Causes of Disorders	...	43
Vata Vitiated Semen	...	43
Pitta Vitiated Semen	...	44
Kapha Vitiated Semen	...	44
Rakta Vitiated Semen	...	44
Semen Vitiated by Vayu and Kapha	...	44
Semen Vitiated by Vayu and Pitta	...	44
Semen Vitiated by Pitta and Kapha	...	44
Semen Deranged by Vayu, Pitta and Kapha	...	44
Abhicharaka Disorder of Semen	...	45
Avasadi Disorder of Semen	...	45
Prognosis	...	45
Treatment	...	45
Diseases of the Male Organ	...	47
Upadama -- Nidanam	...	47
Symptoms of Vataja Type	...	48
Symptoms of Pittaja Type	...	48
Symptoms of Kaphaja Type	...	48
Symptoms of Raktaja Type	...	48
Symptoms of Sannipatika Type	...	48
Lingarsas (Fig warts or condylomatous growths about the Male Genitals)	...	49
Suka-Dosha	...	49
Classification	...	49
Prognosis	...	50
Parivartika	...	51
Avapatika	...	52
Niruddha-Pakasa	...	52
Treatment of Upadamsam	...	52
General Treatments	...	52

Treatment of Vataja Upadamsa	...	52
Treatment of Pittaja Upadamsa	...	52
Treatment of Kaphaja Upadamsa	...	52
Treatment of Tridoshaja and Raktaja Upadamsa	...	52
Treatment of the Sores on the Penis (sooka)	...	55
Treatment of Sarshapi etc., in Detail	...	55
Treatment of Parivartika	...	57
Treatment of Niruddha -- Prakasa	...	57
Treatment of Linga Arsas	...	58
Is Sukram present in Woman? Have they got impotence?	...	59
Pure and Healthy Arthavam	...	60
Derangement of Fat--Causes, Symptoms and Treatment	...	61
Deranged Arthavam	...	62
Treatment of the Derangements of Arthavam	...	62
Asrigdara (Menorrhagia)	...	63
Causes, Symptoms and Treatment of Pradara	...	63
Vataja Pradara	...	64
Pittaja Pradara	...	64
Kaphaja Pradara	...	64
Tridoshaja Pradara	...	65
Signs of an Incurable Fatal Case	...	65
Treatment	...	65
Causes in Susruta's Kaumara Bhritya Tantra	...	66
Extra Muscles in Woman	...	67
Twenty Diseases of Yoni Peculiar to Females : (Female Organs of Generation)	...	68
Sushruta's Enumeration and Classification	...	75
Symptoms of Vataja Types	...	75
Symptoms of Pittaja Types	...	75
Symptoms of Kaphaja Types	...	75
Symptoms of Tridoshaja (Yoni) Types	...	75

Treatment General	...	75
Diet	...	76
Bala – Thilam	...	76
Kasmaryadi Ghrita	...	77
Treatment of Pitta Yoni Vyapat	...	77
Brihat Sathavari Ghritam	...	79
Audumbara Thailam	...	89
Yonikandam	...	80
Bhagarsas	...	80
Celibacy–Errors of Sex Denial	...	81
Stages of Sexual Development	...	81
Rules Regarding Sexual Intercourse	...	81
Women Unfit to Sexual Intercourse	...	83
Evil Effects of the Foregoing Abuses	...	83
Sukrasmari	...	85
Treatment	...	85
Period of Menstruation (Pradhana Pushapavathi)	...	87
Regimen to be Observed in Her Menses (Hygiene of Menstruation)	...	87
Prohibited Period and the Results of the Intercourse during Menstruation	...	87
Conception Period (Ritu Kala)	...	88
Symptoms	...	89
Regimen that will enable Men and Women of impaired semen and ovum and uterus (Garbha Sayya) who desire excellent progeny to secure their objective	...	90
The Ceremony of Garbhadhana	...	91
Procedure on the First Bridal-day	...	92
Procedure on the First Bridal-night	...	93
The Erogenous Zones and their Significance in Women's Love-life	...	93

Ashtanga Maithunam	...	95
Process of Sexual Act	...	95
Effects of Unsatisfactory Love Life	...	96
Adakshapurushotpannam	...	96
Sapathni Vihitam	...	97
Daivajjatham	...	97
Proper Method of Conception	...	97
Symptoms of Recent Fecundation	...	98
Concluding Note	...	98
The Two Paramount Urges	...	99
Many Variations of Nature Worship	...	100

CHAPTER III

SURGERY IN AYURVEDA

1. Introduction	...	102
Evidence of Their Existence	...	103
Lithotomic Operations	...	105
Amputations	...	105
Ophthalmic Surgery	...	105
Midwifery	...	106
2. Hospitals and Their Equipment	...	107
Yantras (Appliances)	...	109
Shastras (Instruments)	...	110
Anu Shastras	...	110
Instruments	...	111
3. Knowledge of Anatomy of the Hindu Surgeons	...	111
Statement Referred to in Page 115	...	113
4. Treatment by Caustics (Kshara Karma) and By Actual Cautery (Agni Karma)	...	114
Agnikarma or Cauterisation	...	116
5. Blood-Letting	...	117

1. Application of Leeches	...	117
2. By Venesection	...	119
6. Ulcers and Their Treatment	...	120
Signs of Shuddavrana	...	121
Treatment of Ulcers	...	121
7. Injuries of the Bones – Fractures and Dislocations	...	123
Anaesthesia and Surgical Operations	...	125
8. Conclusion	...	126

CHAPTER IV

(NEURO) BRAIN SURGERY IN AYURVEDA

1. Instruments	...	128
Antiseptic Precautions	...	128
Head Injuries and Tumours	...	129
2. Neuro - Surgery	...	130
(a) The Central Nervous System	...	131
(b) The Peripheral Nervous System	...	132
(c) The Automatic Nervous System	...	133
Paediatrics	...	134
Epilepsy	...	135
Pain	...	135
Mental Diseases	...	135
The Science of Yoga	...	136
3. What A Village Vaidya Can Do For Brain	...	136
Disease	...	136
Headache	...	137
Dim Vision	...	137
Epilepsy	...	137
Paralysis	...	138
Vomiting	...	139
Mental Changes	...	139

PART III : DIAGNOIS IN AYURVEDA

CHAPTER I

THE IMPORTANCE OF DIAGNOSIS

The Importance of Diagnosis	...	1
Concentration of Mind Essential	...	1
Definition of Roga Vijnanam	...	2
Conception of Health and Disease	...	2
Panchalakshanan Nidana	...	3
Nidana	...	4
Purvarupa	...	4
Rupa	...	4
Upasaya	...	4
Samprapti	...	5
Different Methods of Investigation	...	6

CHAPTER II

NIDANA—CAUSE OF DISEASE

Nidana – Cause of Disease	...	7
Derangement of Doshas	...	7
Immediate, Remote, Weak and Patent Causes	...	7
Incompatible Correlation, Faulty Understanding and Seasonal Factors	...	8
Causes of Vitiating of Doshas, Direct Cause of Disease and of Both	...	9
Pre-Existing and Existing Causes	...	10
External and Internal Causes	...	10
Internal Causes—Abhyantara Nidanas	...	11
Kinds of Dosha Derangement	...	11

Seasonal and Unseasonal Doshas	...	11
Principal and Subordinate Doshas	...	12
Temperamental and Anti-Temperamental Doshas	...	12
Doshas Pulled from their Own Places	...	12
Varieties of Movements of Doshas	...	13
Movements into Koshta, Sakhas and Marmasthi-Sandhies	...	13
Immature and Mature Doshas	...	14
Nija and Agantuka Causes	...	15

CHAPTER III

PURVARUPA

Definition	...	16
Importance of Studying Purvarupa	...	16
Importance of Studying Purvarupa	...	16
Two Kinds of Purvarupas	...	18

CHAPTER IV

RUPA

Rupa	...	20
------	-----	----

CHAPTER V

UPASAYA-DIAGNOSIS BY EXPERIMENTAL TREATMENT

Diagnosis by Experimental Treatment	...	23
Upasaya is of Six Kinds	...	24

CHAPTER VI

SAMPRAPTI

Samprapti	...	28
Six Stages in the Course of Disease	...	29

CHAPTER VII

ASHTA STHANA PARIKSHA

Introduction	...	31
Definition	...	32

CHAPTER VIII

NADI-THE PULSE

Srotas, Sira, Dhamani and Nadi	...	34
The Object of Studying the Pulse	...	37
Yogic Concentration	...	38
The Three Conditions Necessary	...	38
1. The Unknown Hereditary Factor	...	39
2. The Grace of the Teacher	...	39
3. Abhyasa - Continued Practice	...	40
Book Knowledge not very Helpful	...	40
Vata, Pitta and Kapha Pulse	...	41
The Gati of Nadi Compared to the Gati of Animals etc	...	42
1. Vata Pulse	...	42
2. Pitta Pulse	...	42
3. Kapha Pulse	...	43
General Remarks	...	43
Examine the Man as a Whole	...	44
Pulse Indicating Death	...	45
Vata Pitta Pulse	...	46
Vata Sleshma Pulse	...	46
Pitta Sleshma Pulse	...	47
Sannipata Nadi	...	47
Why Left Hand in Women ?	...	49
Why Three Fingers, Not One ?	...	50

Best Time for Examining the Pulse	...	51
Minimum Time Required for Examining the Pulse	...	52
Variations in Pulse	...	52
Pulse in Various Diseases	...	53

CHAPTER IX

MUTRA PARIKSHA

(Examination of Urine)

The Collection of Urine	...	54
Colour	...	55
Quantity	...	56
Consistency and Density	...	57
Odour	...	58
Deposit	...	59
Chemical Examination of the Urine	...	59
Reaction	...	59
Albumin	...	59
Sugar	...	60
Fehling's Test	...	60
Bile in Urine	...	60
Prameha	...	61
Ten Kapha Mehas	...	61
Six Pitta Mehas	...	63
Four Vata Mehas	...	63
Causes of Prameha	...	64
Prevention of Prameha	...	64
Oil Test for Urine	...	64
Method of Examination	...	65

CHAPTER X

MALA PARIKSHA

(Examination of Stools)

Examination of Stools	...	67
-----------------------	-----	----

CHAPTER XI

JIHVA—THE TONGUE

Jihva—The Tongue	...	67
Variation in the Sense of Taste	...	70
Tastes of the Patient's Body Foreboding Death	...	71

CHAPTER XII

SOUND—SABDA

Examination of Voice—Sabda Pariksha	...	72
-------------------------------------	-----	----

CHAPTER XIII

SPARSA—THE SENSE OF TOUCH

Sparsa—The Sense of Touch	...	73
Variations in Complexion	...	74

CHAPTER XIV

DRUK—EYES

Druk—Eyes	...	76
-----------	-----	----

CHAPTER XV

AKRITI—GENERAL CONDITIONS AND APPEARANCE

Akriti—General Condition and Appearance	...	78
Dasavidha Pariksha—Ten Points for Investigation	...	78

Importance of a Thorough Examination	...	79
1. Karanam—The Physician	...	82
2. Karanam—The Medical Treatment	...	82
3. Karyayoni—Derangement or Disease	...	83
4. Karya—Equilibrium of the Doshas	...	83
5. Karyaphalam—Resulting Happiness	...	83
6. Anubandha—Continuity of Life	...	83
7. Desa—Habitat and Seat of Disease	...	84
8. Kala—Climate and Period of Disease	...	84
9. Pravritti—Commencement of Treatment	...	84
10. Upaya—The Ways and Means	...	84
Conclusion—Study the Man as a Whole	...	85

CHAPTER XVI

EXAMINATION OF THE PATIENT

(Rogi Pariksha)

Examinations of the Patient (Rogi Pariksha)	...	87
Ten Points for the Study of the Patient	...	88
Individual Constitution—Prakriti	...	88
Some Factors which Determine the Prakritis	...	90
Kapha Prakriti	...	90
Pitta Prakriti	...	90
Vata Prakriti	...	92
Sama Prakriti	...	92
Vikriti—Disease	...	93
Sara—Strength of Building Materials	...	94
Eight Types of Sara	...	94
1. Satwa Sara (Mental Strength)	...	95
2. Sukra Sara (Strength of Seed)	...	95
3. Majja Sara (Strength of Marrow)	...	95

4. Asthi Sara (Strength of Bone)	...	95
5. Meda Sara (Strength of Medas—Fat)	...	96
6. Mamsa Sara (Strength of Mamsa—Flesh)	...	96
7. Rakta Sara (Strength of Rakta—Blood)	...	96
8. Twak—Sara (Strength of Twak—Skin)	...	96
Samhanana (Compactness of the Materials)	...	97
Pramana	...	97
Examination of Children	...	99
Satmyam—Compatibility	...	100
1. Ritu Satmya	...	101
2. Desa—Satmya	...	101
3. Roga Satmya	...	101
4. Okasatmya.	...	102
5. Jatisatmya	...	102
6. Vyayama Satmya	...	102
7. Daka—Satmya	...	102
8. Diva—Swapna—Satmyata	...	103
Oka Satmya or Abhyasa Satmya	...	104
Sattwam	...	105
I Satwikas	...	106
(1) Brahma Kaya—Brahma Disposition	...	106
(2) Mahendra Kaya—Indra Disposition	...	106
(3) Vaaruna Kaya—Vapuna Disposition	...	107
(4) Koubera Kaya—Kubera Disposition	...	107
(5) Gandharva Kaya—Gandharva Disposition	...	107
(6) Yama Kaya—Yama Disposition	...	107
(7) Rishi—Sattwa—Rishi Disposition	...	107
II Rajasas	...	107
(8) Asura Sattwa—Demon Disposition	...	108
(9) Sarpa Sattwa—Snake Disposition	...	108
(10) Sakuna Kaya—Bird Disposition	...	108

(11) Rakshasa Kaya—Giant Disposition	...	108
(12) Paisacha Kaya—Devil Disposition	...	108
(13) Preta Sattwa—Ghost Disposition	...	108
III Tamasas	...	109
(14) Pasu Kaya—Brute Disposition	...	109
(15) Matsya Kaya—Fish Temperament	...	109
(16) Vanaspatya Kaya—Plant Disposition	...	109
Vata Temperament	...	109
Pitta Temperament	...	109
Kapha Temperament	...	109
Ahara Sakti—Capacity for Food	...	110
9. Vyayama Sakti (Capacity for Exertion)	...	111
10. Vayas—Age	...	112
Limited and Unlimited Expectation of Life	...	113
Two Factors determining Expectation of Life—		
Daivika Karma and Purushakara	...	113
Human Effort Essential	...	115
Expectation of Life Not altogether Predetermined	...	115
Marriage	...	117

CHAPTER XVII

ARISHTAS—SYMPTOMS FOREBODING DEATH

Arishtas—Symptoms Foreboding Death	...	119
Indriyas	...	120

CHAPTER XVIII

VALUE OF MODERN SCIENCES

Value of Modern Sciences	...	126
Conclusion	...	127

PART IV : TREATMENT IN AYURVEDA

CHAPTER I

JWARA (FEVERS)

Introduction	...	131
Definition of Jwara	...	132
Samprapti of Jwara	...	132
Premonitory Symptoms of Jwara	...	133
Special Prodromes	...	133
Types	...	133
Causes and Symptoms of Vata Jwara	...	133
Causes and Symptoms of Pitta Jwara	...	134
Causes, Signs and Symptoms of Kapha Jwara	...	135
Dwandwa and Sannipata Types of Jwaras	...	136
Vikriti Vishama Samavata (Doshakrita Jwaras)	...	136
Agantu Jwaras	...	137
Agantu Jwara Caused by Visha (Poison)	...	137
Agantu Jwara Caused by Lust Etc.	...	137
Various Classifications and Specific Types	...	138
Vishama Jwara	...	138
Santata Jwara	...	138
Satata Jwara	...	139
Anyadushka Jwara	...	139
Tritiyaka Jwara	...	139
Chaturdhaka Jwara	...	139
Vatabalasaka Jwara	...	139
Pralapaka Jwara	...	140
Some Specific Types Described by Basavaraju	...	140
Specific Sannipata Jwaras	...	140
1. Sandhika Jwara	...	140
2. Tandrika	...	140

(11) Rakshasa Kaya—Giant Disposition	... 108
(12) Paisacha Kaya—Devil Disposition	... 108
(13) Preta Sattwa—Ghost Disposition	... 109
III Tamasas	... 109
(14) Pasu Kaya—Brute Disposition	... 109
(15) Matsya Kaya—Fish Temperament	... 109
(16) Vanaspatya Kaya—Plant Disposition	... 109
Vata Temperament	... 109
Pitta Temperament	... 109
Kapha Temperament	... 110
Ahara Sakti—Capacity for Food	... 111
9. Vyayama Sakti (Capacity for Exertion)	... 112
10. Vayas—Age	... 113
Limited and Unlimited Expectation of Life	... 113
Two Factors determining Expectation of Life—	... 113
Daivika Karma and Purushakara	... 115
Human Effort Essential	... 115
Expectation of Life Not altogether Predetermined	... 117
Marriage	... 117

CHAPTER XVII

ARISHTAS—SYMPTOMS FOREBODING DEATH

Arishtas—Symptoms Foreboding Death	... 119
Indriyas	... 120

CHAPTER XVIII

VALUE OF MODERN SCIENCES

Value of Modern Sciences	... 126
Conclusion	... 127

PART IV : TREATMENT IN AYURVEDA

CHAPTER I

JWARA (FEVERS)

Introduction	... 131
Definition of Jwara	... 132
Samprapti of Jwara	... 132
Premonitory Symptoms of Jwara	... 133
Special Prodromes	... 133
Types	... 133
Causes and Symptoms of Vata Jwara	... 133
Causes and Symptoms of Pitta Jwara	... 134
Causes, Signs and Symptoms of Kapha Jwara	... 135
Dwandwa and Sannipata Types of Jwaras	... 136
Vikriti Vishama Samavata (Doshakrita Jwaras)	... 136
Agantu Jwaras	... 137
Agantu Jwara Caused by Visha (Poison)	... 137
Agantu Jwara Caused by Lust Etc.	... 137
Various Classifications and Specific Types	... 138
Vishama Jwara	... 138
Santata Jwara	... 138
Satata Jwara	... 139
Anyadushka Jwara	... 139
Tritiyaka Jwara	... 139
Chaturdhaka Jwara	... 139
Vatabalasaka Jwara	... 139
Pralapaka Jwara	... 140
Some Specific Types Described by Basavaraju	... 140
Specific Sannipata Jwaras	... 140
1. Sandhika Jwara	... 140
2. Tandrika	... 140

3. Chittavibhrama	... 141
4. Kanthakubja	... 141
5. Karnika Sannipata	... 141
6. Jhiwaka Sannipata	... 141
7. Rugdaha Sannipata	... 141
8. Antaka Sannipata	... 142
9. Bhugnanetra Sannipata	... 142
10. Raktashtecvi	... 142
11. Pralapa	... 142
12. Sitanga Sannipata	... 142
13. Abhinyasa	... 142
Certain Peculiar Types of Feverish Heat in Jwaras	... 142
Sitapurva Jwara and Dahapurva Jwara	... 143
Jwaras Lodged in Dhatus	... 144
Symptoms of Jwaras Lodged in Rasadhatu	... 144
Symptoms of Jwaras Lodged in Rakta Dhatu	... 144
Symptoms of Jwaras Lodged in Mamsa Dhatu	... 144
Symptoms of Jwaras Lodged in Medo Dhatu	... 144
Symptoms of Jwara Lodged in Asthi Dhatu	... 144
Symptoms of Jwara Lodged in Majja Dhatu	... 144
Symptoms of Jwara Lodged in Sukra Dhatu	... 145
Prakrita and Vikrita Jwaras	... 145
Antarvega and Bahirvega of Jwaras	... 145
Antarvega	... 146
Bahirvega	... 146
Amajwara	... 146
Pachyamana Jwara	... 147
Nirama Jwara	... 147
Taruna Jwara, Madhyama Jwara, Purana Jwara	... 147
Upadrava of Jwara	... 147
Doshapaka and Dhatupaka	... 148

Dhatupaka	... 148
Signs of Unfavourable Prognosis Occuring in Jwara	... 148
Symptoms of Relief of Jwara	... 150
Summary	... 151
Treatment	... 152
Performance of Langhana	... 152
When Langhana is Prohibited	... 154
Purgative in Fevers	... 156
Vamana Karma in Fever	... 157
Diet in Jwara	... 158
Things Prohibited in Nava Jwara	... 158
Sweda Karma in Jwara	... 159
Measures which Ripen Doshas	... 159
Hot or Cold Water to Drink in Jwara	... 159
Treatment of Nirama Jwara	... 160
Purgative in Fevers	... 160
Enemata in Fevers	... 160
Anuvasanavasti in Fevers	... 162
Nasya in Fevers	... 162
Treatment in Sannipata Fever	... 163
Special Types of Sannipata Fevers	... 168
Parotitis (Karnamula Sotha)	... 168
Rakta Moksha in Sannipata Fever	... 168
Treatment of Typhoid Fever	... 169
My Own Treatment	... 170
Control of High Temperature	... 171
Treatment of Purana Jwara	... 172
Fasting Treatment	... 172
Symptoms of Immature Fever	... 173
The Use of Purgatives	... 173
The Use of Gruels and Medicated Ghee	... 173
A Concrete Instance	... 174

Complications	... 175
No Serious Antagonism	... 175
Vata, Pitta, Kapha and Sannipata Types	... 175
Diligent Study Essential	... 175
Agantu Jwara	... 176
Treatment of Vishama Jwara	... 178
Treatment of Malaria	... 180
1. Arkaadi Vati	... 181
2. Kumaryadi Vati	... 181
3. Sitamsurasa	... 182
4. Panchatikta Quatha Churnam	... 182
5. Sudarsana Churnam	... 182
6. Nirgundi Kashayam	... 183
Important Note	... 183
Treatment of Dhatugata Jwaras	... 184
Dietary in Jwara	... 184
Laja Peya	... 185
Lajamanda	... 185
Manda	... 185
Vatya Manda (Barley Water)	... 186
Ashtaguna Manda	... 186
Mudga Yusha	... 187
Dadimamalaka Yusha	... 188
Kulutha Yusha	... 188
Chanakayusha	... 188
Masura and Aadhaki Yusha	... 188
Yushas with Drugs	... 189
Patola Yusha	... 189
Nimba Yusha	... 189
Panchamushtika Yusha	... 190
Sapthamushtika Yusha	... 190

Cooked Vegetables (Vegetable Curries)	... 190
Wheat	... 190
Butter Milk	... 191
Milk	... 192
Breast Milk	... 193
Coconut Water	... 193
Ghee	... 193
Light Food in Small Quantity and at Proper Time	... 194
Drugs Used in Jwara	... 194
Medicines	... 195
Medicines Useful in Vishama Jwara	... 196
In Vata Jwara	... 197
In Pitta Jwara	... 197
In Kapha Jwara	... 198
In Vata Pitta Jwara	... 199
Vatasleshma Jwara	... 199
In Pittasleshma Jwara	... 200
In Sannipata Jwara	... 200
In Agantu Jwara	... 201
Vishama Jwara and Jirna Jwara	... 202
Abhyanga	... 203
Vishama Jwara	... 204
Summary	... 206
The Three Factors Contributing to Resistance to Disease	... 207
The Soul Force (Atma Sakti)	... 209

CHAPTER II

MODERN CONCEPTION OF FEVER AND ITS AYURVEDIC SURVEY

Modern Conception of Fever & its Ayurvedic Survey	... 210
Allopathic Classification of Fevers	... 211

Allopathic Treatment of Fevers	... 213
Ayurvedic Survey	... 213
Full Implications of the Word "Jwara"	... 214
Classification of Fevers	... 215
Six Stages in the Development of Fever	... 217
Pathology of Fever	... 217
Principles of Treatment of Fever	... 218

CHAPTER III

AMA AND ITS IMPORTANCE

Ama and its Importance	... 221
Ama Dosha and Ama Visha	... 222
Nature of Ama	... 222
Jatharagni – Digestive Fire	... 222
Panchabhutagnis and Dhatwagnis	... 223
Forms of Diseases Caused by Ama	... 225
Symptoms of Ama Associated with Vayu,	
Pitta and Kapha	... 226
Symptoms Due to Malas Associated	... 227
with Ama Treatment	... 227
Protection of Ojas and Balam in Langhana	... 229
Elimination of Ama	... 229
Ama – Its Importance in Ayurvedic Treatment (Review)	... 230
Six Kriyakalas or Periods for Treatment	... 232
Clinical Classification of Inflammation	... 233
Dosha Paka and Dhatu Paka	... 237
The Three Stages of Inflammation	... 238
Symptoms of Pachyamana (Ripening) Fever	... 241
Symptoms of Pakwa (Rip) Fever	... 241
Two Kinds of Ama Dosha	... 241
Conclusion	... 242

AAYURVEDIC ENCYCLOPAEDIA

VOL. II - PART I

PANCHAKARMAAS

(The Five Medical Operations in Aayurveda)

CHAPTER I

I

SUMMARY OF AAYURVEDIC TREATMENT

“Samsodhanam samsamanam
Nidaanasya cha varjanam
Etaavat Bhishajaa kaaryam
Roge roge yathaa vidhi.”

—Charaka Vimaana 7-43.

“Purify, pacify and remove the cause.” In every disease, it is the duty of the physician (1) to purify the system by eliminating the offending material, (2) to soothe the parts that are already injured and (3) to remove the original cause of the diseases. This is all that the physician has to do and he has to do this in a very scientific and systematic manner (yathaa vidhi) and that in every disease (Roge Roge). He emphasises that this is the least that the physician must do. (Etaavat Bhishajaa Kaaryam).

Pancha Karmaas.

The Samsodhana or purifying processes are collectively called the Pancha Karmaas—the Five Operations. They are (1) Nasya Karma (Nasal Purge), (2) Vamana Karma (Emetic), (3) Virechana Karma (Purgatives); (4) Nirooha Vasti (Cleaning Enemata), and

(5) Anuvaasana Vasti (Soothing Enemata). Susruta includes both the Vastis in one item and takes Rakta Moksha (Blood-letting) in the fifth place as one of the Pancha Karmaas.

SHAD UPAKRAMAAS

(THE SIX METHODS OF TREATMENT)

The general methods of treatment for all diseases are classified in Aayurvedaa into six categories— These six methods of treatment are collectively called the Shad-Upakramaas. These are (1) Brimhana (Promoting Growth), (2) Langhana (Effecting Reduction), (3) Snehana (Lubrication), (4) Rookshana (Drying), (5) Swedana (Sweating) and (6) Stambhana (Promoting Contraction).

Definitions.

“Langhanam Brimhanam kaale
Rookshanam Snehanam tathaa
Swedanam Stambhanam chaiva
Jaaneete yah sa vai Bhishak.”

—Charaka Sutra 22-4.

“He who knows how to perform the methods of Langhana and Brimhana at the proper time, Rookshana and Snehana also in the same manner and Swedana and Stambhana judiciously likewise, is the best physician”.

All methods of medical treatment in Aayurveda may be classified under one or the other of the following six categories, namely :

1. *Brimhanam* : Promoting growth or encouraging plumpiness.
2. *Langhanam* : Effecting leanness, the opposite of the above.
3. *Snehanam* : Lubrication or increasing fat or the watery content of the body.
4. *Rookshanam* : Promoting dryness, the opposite of the above *i.e.*, removal of the fat or moisture.
5. *Swedanam* : Promoting sweat or diaphoresis, etc., *i.e.*, encouraging the dilatation (Vikaaranam) of all channels and openings in the body.

6. *Stambhanam* : Promoting contraction (Sankochanam) or constriction of the part or the vessels of supply such as arterioles, blood, lymph vessels, etc., *i.e.*, the opposite of Swedanam.

Although six methods are mentioned here, the last four methods may be included in the first two methods, namely, Brimhana and Langhana, because each of them ultimately either promotes plumpiness or causes reduction of the body in some degree or other. They are differentiated into six methods only for facility in treatment. Just as the multitude of diseases classified into various classes according to their symptoms, names, causes locality etc., may be brought under the three headings of Vaata, Pitta and Kapha, so also all the methods in medical treatment may be brought under the two headings of Brimhana and Langhana or under the six headings of Brimhana, Langhana, Snehana, Rookshana, Swedana and Stambhana.

This is the gist of the Aayurvedic Treatment.

“Doshaanaam bahusamsargaath
Sankeeryante hyupakramaah
Shatthwamtu naativartante
Tritwam vaataadayo yathaa.”

—Charaka Sutra 22-42.

On account of the multifarious complex combinations of the three Doshaas, the methods of medical treatment also may become complicated. However combined, their number does not exceed six, just as the number of Doshaas however combined cannot transcend their three-fold character. These methods of treatment should be performed in a very delicate and balanced manner, so that, any excess or deficiency of the six methods or their combinations may be avoided.

The patient is the best judge to know whether the methods of treatment are performed correctly or not. The progress in the relief of the sufferings of the patient confirms the utility of treatment. The patient feels happier if the equilibrium prevails and

he feels unhappy the moment the equilibrium is disturbed. For instance, if a particular portion of the body is dry and non-oily and if a little lubricant is applied to it as treatment, the patient surely feels some comfort but if instead of this, the opposite treatment of drying is given, the patient is sure to feel more discomfort.

As in Allopathy so in Aayurveda, the treatment generally consists of supplying the opposite of the diseased condition that exists in the body.

It may be stated here that all the above methods of treatment and operations included in the six categories of treatment called the Shad-Upakramaas, include the Pancha Karmaas which constitute mainly, the Langhana part of the six methods. All these processes of treatment are included in Antahparimaarjana (Internal Cleaning) and Bahihparimaarjana (External Cleaning).

II

DEFINITION OF PANCHA KARMAAS

The term Pancha Karmaas which literally means the five operations or actions is defined in two ways.

1. Charaka includes the following five operations or procedures in the Pancha Karmaas :-

1. *Nasya Karma* : It is also called Sirovirechana Karma. Nasya Karma is the administration of medicines either in the liquid or powder form into the nostrils. Its main purpose is to purify the nasal passages and relieve the congestion in the head. In fact, the administration of Nasya Karma is considered as a purgative to the head as the term Siro Virechana literally implies.
2. *Vamana Karma* : Administration of Emetics.
3. *Virechana Karma* : Administration of Purgatives.
4. *Nirooha Vasti* : This is also called Aasthaapana Vasti. This includes the administration of decoctions of certain

substances as enemata for the chief purpose of cleaning the intestines. This is used in intestinal colic due to irregular peristalsis (Udaavartham) and in constipation (Vibhanda) etc.

5. *Anuvaasana Vasti* : This is also called Sneha Vasti. This consists of the administration of Enemata, which is prepared with the admixture of medicated oils. Its purpose is not merely cleaning, but it is mainly soothing and relieving the troubles due to Vaayu (Maaruthaghnam). Charaka Sutra 2-14.

2. Karma means a Special Operation. The word Karma means a special operation or an act whose purpose is here to drive out the vitiated doshaas and thereby clean the tissues. These Karmaas are generally taken as five. Four of these, namely, Nasya Karma, Vamana Karma, Virechana Karma and Nirooha Vasti are definitely Sodhana *i. e.*, purificatory or eliminative and therefore they are included under Langhana treatment but Anuvaasana Vasti Karma is considered as a Samana Karma, a soothing treatment; although its main purpose is also to eliminate or to check one of the Doshaas namely, Vaata (Maaruthaghnamiti.) Charaka Sutra 2-14.

Anuvaasana Vasti is therefore included under the Brimhana treatment. Charka Sutra 22-18.

Susruta Includes Rakta Moksha.

Susruta, who is primarily a Surgeon, includes the two items of Nirooha and Anuvaasana Vasti Karmaas as one item and adds Rakta Moksha, which means venesection or blood-letting, as one of the Pancha karmaas. Vaagbhata accepts Susruta's view. The five operations are thus defined in two ways in Aayurveda.

Sneha Karma and Sweda Karma.

Sneha Karma which means, the administration internally or externally of lubricants (ghee, oil, etc.,) and Sweda Karma which means mainly the administration of appropriate treatment for sweating are also sometimes called Karmaas *i. e.* operations or

actions. But, they are only auxiliary operations, whose purpose is to loosen the Doshaas, which are stuck up in the tissues and to liberate them into the circulation and to exhibit them in the alimentary canal, so as to make them ready for elimination, by administering one or more of the above Pancha Karmaas. They cannot strictly be called Karmaas or purging operations, although they are also often necessary for eliminating the vitiated Doshaas.

“Taani upasthita doshaanaam
Sneha swedopapaadanaih
Pancha karmaani kurveeta
Maatraakaalaau vicharayan.”

—Charaka Sutra 2-13.

Having first made the Doshaas exhibit themselves as loose and fit for easy elimination by the previous administration of suitable Sneha (lubrication, massage, etc.) and Sweda (sweating and fomentation etc.), the Pancha Karmaas are to be administered after carefully studying the appropriate time and suitable dose. Charaka Sutra 2-13.

This is the general rule but these purificatory operations are sometimes administered without any previous preparations.

In fact, in some cases particularly when Kapha is in excess and when it is exhibiting itself prominently in the Aamaasaya and is known to be responsible for fever, Vamana Karma is to be performed at once and in proper time, without preliminary administration of Sneha and Sweda Karmaas.

“Kapha pradhaanaan utklishtaam
Doshaan aamaasaya sthitaam
Buddhwaa jwarakaraan kale
Vamyaanaam vamaniah haret.”

The Pancha Karmaas are included in Shad Upakramaas described above and they will be described in detail after the Shad Upakramaas.

Systematic Treatment by Pancha Karmaas Neglected.

Systematic treatment of purification by the Pancha Karmaas and also the soothing Brimhana and Langhana treatment by carefully observing the Sneha and Sweda Karmaas and their opposites have been neglected by the Aayurvedic Practitioners of the present day. They are generally satisfied by giving an additional occasional purgative and some carminatives. This neglect is responsible to some extent for failure in the treatment of both acute and chronic diseases. Certain seasonal diseases may be prevented, if the purificatory (Sodhana) procedure recommended for each season is followed in a scientific manner as dictated in Aayurveda. The different methods of treatment are described in detail below.

III

BRIMHANA TREATMENT

(PROMOTING GROWTH)

Brimhana is the method of treatment which confers Brihatwa i.e., plumpiness or addition of Matter. A BRIMHANA drug, substance or act (like sleep etc.) is Guru (Heavy), Seetha, Mridu, Sthira, and Sleshmala.

Brimhana is said to be the antithesis of Langhana. It is also called Santarpana (the opposite of Apatarpana). It may be said that the Anabolic processes will be on the increase in BRIMHANA.

Brimhana Substances.

“The BRIMHANA substances are—fresh meat of animals, birds and fish. The other substances are milk, sugarcandy, ghee, sweet substances like grapes and orange etc., and acts like Bath (Snaanam) Gentle Massage (Utsaadanam), Sleep (Swapna) and Sneha Vasti (Anuvaasana Vasti) (*Sarveshaam viddhi brimhanam.*)

A Brimhana Food or Medicine or Vihaara (like sleep etc.) generally has the following Gunaas. It is Guru (Heavy), Seetha (Cold), Mridu (Soft or Tender), Snigdha (Oil or Greasy), Bahula

(Plentiful or Copious), Sthoola (Gross or Bulky), Pichchila (Slimy) and probably also (Praayah), Manda (Slow), Sthira (Immobile or Motionless), and Slakshna (Soft and Smooth).

Persons Fit for Brimhanam.

The persons who are fit for Brimhanam are emaciated people, persons with injuries, lean people, old men, persons with weakness; people who walk long distances habitually, persons who indulge in sexual intercourse and liquor and all persons in the summer season—these are fit for BrimhanaKarma. Consumptives or persons suffering from other wasting diseases (Sosha), piles, diarrhoea (Grahani and such other diseases) - These patients also are fit for Brimhana but they are especially benefitted by taking the meat of Kravyadaas *i. e.*, the meat of animals or birds which kill others and eat their flesh such as tiger, lion, owl, kite, crow, etc. This flesh may sometimes be given in disguise, if the patients are likely to have a dislike for a particular kind of flesh. (See treatment of Raa Jayakshma by Charaka). Easily digestible meat juices of birds, etc., specially prepared would be preferable.

Disadvantages of Excessive Brimhana Treatment.

If the Brimhana or Santarpana treatment is properly carried out, plumpiness (Pushti) results. If the Brimhana treatment is excessively carried out without judicious Apatarpana treatment alternating it, diseases like Aamadosha, Prameha, dysuria, pyrexia, sluggishness, skin diseases (Kushta), heaviness of the body, impotency (Klaibya), obesity, inability in the use of the mental faculties and of the Indriyaas, may also result.

Antidotes for Excessive Brimhana Treatment.

In such a case, proper Langhana treatment like exercise, Vamana, Virechana, Raktamoksha, fasting, Dhoomapaana, Swe-dana, Harreethaki, with honey internally, Pradehaas as indicated for itching etc., and treatment as indicated for Prameha should be carried out. Thrikatu, Thriphala, Honey, Vidanga, Ajamoda, Madhu, Saktu (the powder of popped rice), buttermilk and Udvartana; along with oil baths; etc., are also indicated.

In diseases or untoward symptoms caused by undue Brimhana or Santarpana, the following powder is recommended. Thrikatuka, Sigru, Thriphala, Katurohini, Brihatee, Kantakaari, Haridra, Daaruharidra, Paathaa, Ativisha, Sthiraa, Asafoteida, Saaliparni, Dhaanyakam, Chitrakam, Souvarchalavana, Ajaajee. As many of the available drugs are mixed in equal parts. This powder is to be taken along with equal parts by weight of oil, ghee and honey mixed with it and also 16 parts of fried barley powder. This is mixed with water and then taken in. Further, daily physical exercise (Vyaayaama Nityah), taking food only in proper times (when the previous meal is well digested), substituting wheat and barley for rice.—These counter act the symptoms of Santarpana and also obesity.

General Remarks

It may be noted that Utsaadana is useful in emaciation and Udvartana and Udgharshana are useful in obesity. Though all these go by the term massage, light Utsaadana is a Brimhanakarma. Udvartana and Udgharshana are Langhanakarmaas, Saktu (flour of popped rice) mixed judiciously with honey, sugar and ghee acts as Brimhana while the same Saktu with honey and water is advocated as Langhana. Honey Sugar and ghee in different combinations is said to act as a Brimhana and also as a Langhana. The qualities of various drugs or acts prescribed are to be taken into account in judging the Brimhana or Langhan effect and the substances or operations which increase or decrease those Gunaas respectively should be employed in treatment. So, it is necessary to study minutely the various Gunaas, such as Laghu, Guru, Teekshna, etc., of various drugs, of substances and of acts employed in the treatment. Where such substances and acts could not fit in appropriately, the nearest or most approximate substance containing the same Gunaas may be employed. For instance, in a state of weakness, where Guru, Rooksha and Seetha qualities predominate in the body, substances which contain Snigdha, Ushna and Laghu qualities alone are to be employed. Thus, if milk is advocated in weakness associated with indigestion, in the absence of a substance which contains Snigdha, Ushna and Laghu qualities, and if there is

(Plentiful or Copious), Sthoola (Gross or Bulky), Pichchila (Slimy) and probably also (Praayah), Manda (Slow), Sthira (Immobile or Motionless), and Slakshna (Soft and Smooth).

Persons Fit for Brimhanam.

The persons who are fit for Brimhanam are emaciated people, persons with injuries, lean people, old men, persons with weakness; people who walk long distances habitually, persons who indulge in sexual intercourse and liquor and all persons in the summer season—these are fit for Brimhana Karma. Consumptives or persons suffering from other wasting diseases (Sosha), piles, diarrhoea (Grahani and such other diseases) - These patients also are fit for Brimhana but they are especially benefitted by taking the meat of Kravyadaas *i. e.*, the meat of animals or birds which kill others and eat their flesh such as tiger, lion, owl, kite, crow, etc. This flesh may sometimes be given in disguise, if the patients are likely to have a dislike for a particular kind of flesh. (See treatment of Raajayakshma by Charaka). Easily digestible meat juices of birds, etc., specially prepared would be preferable.

Disadvantages of Excessive Brimhana Treatment.

If the Brimhana or Santarpana treatment is properly carried out, plumpiness (Pushti) results. If the Brimhana treatment is excessively carried out without judicious Apatarpana treatment alternating it, diseases like Aamadosha, Prameha, dysuria, pyrexia, sluggishness, skin diseases (Kushta), heaviness of the body, impotency (Klaibya), obesity, inability in the use of the mental faculties and of the Indriyaas, may also result.

Antidotes for Excessive Brihmana Treatment.

In such a case, proper Langhana treatment like exercise, Vamana, Virechana, Raktamoksha, fasting, Dhoomapaana, Swe-dana, Harreethaki, with honey internally, Pradehaas as indicated for itching etc., and treatment as indicated for Prameha should be carried out. Thrikatu, Thriphala, Honey, Vidanga, Ajamoda, Madhu, Saktu (the powder of popped rice), buttermilk and Udvartana; along with oil baths, etc., are also indicated.

In diseases or untoward symptoms caused by undue Brimhana or Santarpana, the following powder is recommended. Thrikatuka, Sigrū, Thriphala, Katurohini, Brihatee, Kantakaari, Haridra, Daaruharidra, Paathaa, Ativisha, Sthiraa, Asafoteida, Saaliparni, Dhaanyakam, Chitrakam, Souvarchalavana, Ajaajee. As many of the available drugs are mixed in equal parts. This powder is to be taken along with equal parts by weight of oil, ghee and honey mixed with it and also 16 parts of fried barley powder. This is mixed with water and then taken in. Further, daily physical exercise (Vyaayaama Nityah), taking food only in proper times (when the previous meal is well digested), substituting wheat and barley for rice.—These counter act the symptoms of Santarpana and also obesity.

General Remarks

It may be noted that Utsaadana is useful in emaciation and Udvartana and Udgharshana are useful in obesity. Though all these go by the term massage, light Utsaadana is a Brimhanakarma. Udvartana and Udgharshana are Langhanakarmaas, Saktu (flour of popped rice) mixed judiciously with honey, sugar and ghee acts as Brimhana while the same Saktu with honey and water is advocated as Langhana. Honey Sugar and ghee in different combinations is said to act as a Brimhana and also as a Langhana. The qualities of various drugs or acts prescribed are to be taken into account in judging the Brimhana or Langhan effect and the substances or operations which increase or decrease those Gunaas respectively should be employed in treatment. So, it is necessary to study minutely the various Gunaas, such as Laghu, Guru, Teekshna, etc., of various drugs, of substances and of acts employed in the treatment. Where such substances and acts could not fit in appropriately, the nearest or most approximate substance containing the same Gunaas may be employed. For instance, in a state of weakness, where Guru, Rooksha and Seetha qualities predominate in the body, substances which contain Snigdha, Ushna and Laghu qualities alone are to be employed. Thus, if milk is advocated in weakness associated with indigestion, in the absence of a substance which contains Snigdha, Ushna and Laghu qualities, and if there is

too much of the GURU QUALITY IN THE MILK, THIS GURU quality counteracts the other qualities, and therefore milk (which contains GURU Guna though it contains Snigdha Guna) has to be rejected. However the qualities of the milk are altered by a suitable Samskaara, such as the addition of water and boiling it with Sunthi, Pippali, or Maricha and adding sugar. The same milk may be used in indigestion.

Even a cold decoction of pepper or chitraka contains Ushna quality; so, the words Ushna and Seetha should not be taken literally as hot and cold substances but their ultimate action should be considered. So also, the statement that a substance is Rooksha does not mean that the external appearance of the substance is Rooksha, because Honey is Rooksha and Ushna, whereas Wheat (Godhuma) is Snigdha and Seetha although it is dry. The remote and cumulative effects produced inside the body of the patient and sensations felt by him are to be taken into consideration in order to evaluate the qualities of the substances or acts used in treatment.

IV

LANGHANA TREATMENT

(EFFECTING REDUCTION)

Langhana is the administration of the methods of treatment which confers lightness to the body in however small a degree.

Langhana substances or measures.

The Drug or the Act (exercises, etc.,) which is Laghu (light), Ushna (hot), Teekshana, Visada, Rooksha, Khara, Sara and Kathina has usually a Langhana property—*Praayah Langhanam Smrutham.*)

“Langhanam laaghaavaaya yat”

—Vaagbhata.

“Yat kinchit laaghavakaram dehe tat
Langhanam smrutham.”

—Charaka 22

A Langhana food, medicine or Vihaara (like exercise etc.,) has the following Gunaas-Laghu (Light), Ushna (Hot), Teekshana (Sharp or forcible), Visada (Clear and pure), Rooksha (Dry or parched up), Sookshma (subtle or minute), Khara (Rough), Sara (Moving or flowing) and Kathina (Hard or stiff).

Exercise (Vyaayaama) is Langhana. Easily digestible, light liquid food made of fried wheat mixed with honey and taken is also a form of Langhana, whereas nourishing and strong food like the soup made of the flesh of wild boar is Brimhana. So, also certain medicines act as Brimhana and others act as Langhana, for example, purgatives are generally Langhana and nutrient enemata are Brimhana.

“Siddhaa varaaha niryooho
Yavaagooh brimhanee mataa
Gavedhukaanaam bhrishtaanaam
Karshaneeya samaakshikaa.”

—Charaka Sutra 2-23.

Varieties of Langhana.

The four kinds of Sodhana, viz, (1) Vamana, (2) Virechana, (3) Nirooha and (4) Seersha Virechana (Sodhana Nasya) - these four and (5) The use of Paachana drugs or foods (Digestives), (6) Restraining thirst (abstaining from drinking water), (7) Exposure to Wind, (8) Exposure to the Sunlight, (9) Fasting (Upavaasa), and (10) Vyaayaama. These Ten (10) are the varieties of Langhana. The term Langhana is used in two kinds of sense. One has a comprehensive meaning namely, Langhana includes any treatment that reduces the body. The other sense in which the term Langhana is used means only fasting - Upavaasa - Charaka Sutra - 22 - 18.

Two and three varieties of Langhanam :

Sodhanam samanam cheti dwidhaa thatraapi langhanam
Langhanam trividham proktham vaata pitta kaphe shwadha
Langhanam tupavaasasya langhanam bhojanam laghu
Langhanam sushka paaneeyam langhanam paramaushadham.

Persons Fit for Sodhana Langhana.

The persons fit for Sodhana Langhana, i. e., Vamana etc., (the first four), are those in whom there is much accumulation of Kapha Pitta, and Rakta and profuse outgoing waste matter such as urine, faeces, etc. or the persons in whom the vitiation of Vaayu is also mixed up with the other Doshaas (Samsprishhta Maarutha) or in persons whose body has become stouter or more plumpy and who are strong ; such persons are fit for Langhana by the four kinds of Samsodhana type.

Paachana-Digestive.

Paachana means administering a digestive. It is another form of Langhana suited to those persons, whose diseases are of moderate strength (*Teshaam madhyabalaah rogaah*) and are caused by Kapha and Pitta. In Vaata, Paachana is not suitable unless the same is attended by Aamadosha, Hridroga, Vishoochee (Cholera), Alasaka (a kind of Cholera) or diarrhoea in which there may be pain with indigestion while there may be vomiting and evacuation of stools, fever, Vibandha (Constipation), heaviness, belching, Hrilasa (a sort of vomiting sensation) and anorexia etc. In these cases Paachana may have to be administered first (Charaka). But in some cases, where the dosha is profuse, paachana may not be effective and Sodhana treatment (like Vamana and Virechana Karmaas) may have to be used.

Pipaasaa Nigraha.

In the above diseases, occurring in persons of feeble strength (Alpabala), measures like restraining thirst (Pipaasa Nigraha) and fasting (Upavaasa) are useful.

Vyaayaama and Maarutha Treatment.

In disease of moderate strength, exposure to Sun (Aatapa) and exposure to fresh air are useful. It need not be said that in strong people and where the diseases are moderate and feeble, Vyaayaama, Aatapa and Maarutha are highly recommended (Charaka). The strength of the patient is to be judged by the amount of physical

effort the patient employs in performing his own duties or work (*Balam vyaayaamasaktyaa*) and not by external appearances.

Langhana-Upavaasa-Actual Fasting.

The Langhana Treatment which consists of actual fasting is to be used according to the strength of the patient and not according to the strength of the disease which means intensity of the disease.

Uses of Langhana Treatment.

These measures i. e., (the forms of Langhana as exercise), Fasting, administration of Digestives etc., also go by the technical name of Apatarpana and where this word is mentioned in the treatment of any disease the suitable forms of Langhana should be employed. Generally Langhana treatment is useful in persons with skin diseases in Prameha, in persons, who are Snigdha (having taken Sneha or by using Snigdha substances profusely), who had much Brimhana treatment and generally in the winter season even for the treatment of Vaata Disease. (*Sisire langhanam sastam api vaata vikaarinaam*). Although the rule in the treatment of Vaata diseases is to give Brimhana Chikitsa, Langhana treatment may also be given for Vaata diseases in the cold season (Charaka Sutra - 22-24). Here, it is evident that in cases of Prameha and other diseases persons with much strength only should indulge in Vyaayaama etc., while weak people should resort to judicious massage (Ustaadana, etc.).

Results of Proper Langhana.

When the Langhana treatment is properly executed, the Apaana Vaayu passes in the right direction and also the passage of faeces and urine would be proper and lightness of the body results; the chest, belching, throat and mouth become clear (Kanthaasya Suddhi), sluggishness and tiresomeness are mitigated; sweat appears; appetite returns; hunger and thirst reappear normally and in addition to the above, the patient does not experience any suffering mentally also (*Nirvyadhe cha antaraatmani*). 22-35.

Results of Excessive Langhana.

If Langhana is excessively done, shooting pains in joints (Parva Bhedah), bodily soreness (Angamardana), cough, emaciation of the face (Mukhasoshah), loss of hunger (Kshutpranaasa), loss of appetite (Aruchi), thirst, weakness of vision and hearing (Dourbalyam Srothranethrayoh), mental confusion, the passage of Vaata Dosha upwards (Oordhwavaata) hurried breathing, feeling of darkness, emaciation, loss of strength and weak digestion (Dehaagni balanaasascha) may result. A physician should therefore administer Langhana treatment (such as exercise, and fasting etc., in any ailment (acute or chronic) after duly considering all the above points.

Antidotes for Excessive Langhana.

Excessive Langhana treatment may also cause many untoward symptoms or diseases. In such a case, meat juice, milk, sugar, fruit, ghee, baths, Anuvaasana Vasti, (Nutrient Enemata), Abhyanga, etc., are useful. Such persons should habitually use the above mentioned things for some time.

V

SNEHA CHIKITSAA

(LUBRICATION TREATMENT)

The Sneha Karmaas and Sweda Karmaas are to be normally performed before all purificatory processes (Sodhanaas) are undertaken. Rookshana Karma is the opposite of Snehana.

Sneha Karma (Sneha Vidhi) which means lubrication may be internal or external.

Snehana literally means lubrication. It is the first process in treating any disorder by the eliminative methods. According to Aayurveda, it should precede any Sodhana Karma, i. e., the process of eliminating the accumulated Doshaas from the body. Strictly speaking, without performing Sneha and Sweda Karmaas

(Lubrication and Sweating) previously, no emetic, no purgative or no enemata etc., should be administered. Generally, in chronic diseases, this is the rule. In acute diseases, however, there may be an exception. It is said that Sodhanakarma without Sneha and Sweda treatment, may injure the body, just as a dry stick (say a bamboo) breaks during the process of bending before sufficient lubrication and proper heat are applied to it. Susruta says, that the sap or essential part of man is Sneha and the vital processes chiefly consist of Sneha and they are accomplished by Sneha. "*Sneha saarah ayam purushah praanaacha Snehabhooyosthaah sneha saadhyaacha bhaavanti.*" Here, Sneha may mean fat or merely moisture because without the necessary moisture the life processes and even the nutrition of the cells and tissues cannot be effected properly.

Varieties of Sneha.

These Snehaas (Lubricants) are derived from two origins, viz, Sthaavara (Vegetable) and Jangama (Animal). Sesame or Gingely Oil (Tila Thailam) is the most important of all Sthaavara or vegetable oils. Cow's Ghee is the chief of all Jangama or Animal fats. The other two animal fats, next in importance, are Vasa or a kind of animal fat derived from the extraction of meat and Majja or bone marrow. These four Snehaas may be administered in combinations of two or more in different proportions according to the constitution and habits of the individuals. If two Snehaas are mixed for use, the combination is called Yamaka; combination of three Snehaas is termed Thrivrita and of four Snehaas is called Mahaa Sneha. Ghee is considered to be the best of all Snehaas for it can retain any Gunaas transmitted to it from other drugs (by boiling with it).

"Samskaarasya Anuvarthanaat"

Sneha generally controls Vaata, the chief of the Doshaas (*Sarva eva snehaa vaatam upaghnanti*)-Susruta.

Cow's Ghee is especially useful in Vaata Pitta. It develops Rasa Dhaatu, Sukra (Semen) or Ojas (in their deficiency). It alleviates burning Sensation (Nirvaapanam). It is conducive to

the development of voice and bodily lustre. It is thus preferable to songsters and orators for habitual use.

Gingely Oil is especially useful in pure Vaata; it does not increase Kapha; it increases bodily strength; it is useful for the skin and produces a sort of stability (Sthiragunam); it is useful in diseases of vaata and to those who suffer from enlargement of glands, Naadee (Sinuses), Krimi (Worms), and Kapha diseases.

Vasa is useful for those suffering from fracture or those that are disabled, beaten or those who suffer from INJURIES, HEADACHE, or EARACHE; it increases virility (or Semen) and it is useful for those who indulge in physical exercise. Majja helps to increase strength, semen, rasa, kapha, fat and Medas; it is useful in marasmus and it develops the bones.

The point is, that thinkers or those persons who have brain work and sedentary habits, need more cow's ghee. Corpulent persons and those suffering from Vaata diseases need more Tailam. Labourers or those engaged in hard physical work need Vasa and Majja. Thus, these Snehaas are needed for persons of different constitutions and according to their habits they have to be prescribed in combination also.

As regards ghee, it may be taken alone unmixed with other drugs, if pitta dosha is predominant. In predominance of Vaata, it is to be taken mixed with Saindhavalavana (rocksalt); and in predominance of kapha, ghee may be taken mixed with Trikatu and Yavakshaara (*Kevalam paittike sarpir, Vaatike lavanaanvitam deyam bahukaphe chaapi vyoshakshaarasamaayutam*) (Susruta). Thus Sneha may be mixed up with other drugs or medicated with them. Here, the chief Rasa or taste in the drugs is to be taken into account, and the Sneha (Ghee) possesses the qualities of the drugs in addition to its inherent qualities. Such Snehaas are termed yogavaahi. The Rasaas are six and their various combinations amount to 63. As all substances possess these 63 Rasa combinations only, snehaas are charged with these 63 combinations. The pure Sneha is termed Achchapaanam (pure drink) and this is said to be the best of all Snehaas. It may be

taken by the strong and by those who can endure heavy work and exercise. It is pure Sneha that is to be taken in normal seasons i.e., neither too hot nor too cold (*Kaale naatyushnaseetkale, Achchameva pibet* - Susruta Ch. 21).

In the winter season, the Sneha is to be taken at day-time and in summer at night-time. Again those having predominance of Vaata and Pitta should take it at night only; so also persons with vaata and kapha have to take it only in day-times.

Dose of Snehaas.

As regards the dose of Sneha (Ghee, etc.) it is to be fixed according to individuals. The quantity, which digests in 9 hours is called a small dose, that which digests in 12 hours is the medium that which digests in 24 hours is called a big dose. The small dose is to be given in slight quantity of Dosha; this dose develops digestion; the medium dose is for Vaajekarana and strength-giving and is useful in moderate Dosha; the big dose is to be used in excessive Doshaas. The biggest dose is the one which digests in 24 hours without producing untoward symptoms like fatigue, restlessness etc. Such a dose is to be used in leprosy, poisoning, chronic insanity, epilepsy etc. Initially, the small dose is to be given to any person. (*Praagevalu Hraseeyaseem* - Vagbhata).

This Sneha may be taken along with food by delicate, lean-aged and thirsty people in summer.

If the person who has taken Sneha feels thirsty, he should take hot water only. If the dose is excessive (this is felt by salivation, excessive thirst, anorexia, belchings, etc.), he should vomit it by taking hot water only. If the excessive thirst is not alleviated still, his head should be smeared with cold plasters or applications.

Sneha is especially necessary (1) before the performance of Sweda, (2) in cases where Sodhana is to be done, (3) in persons who indulge in alcohol, (4) who indulge in excessive sexual intercourse, (5) in sedentary workers, (6) in old people, (7) in children and (8) in weak and lean people. It is also desirable for use by those whose body is Rooksha, whose blood and semen are

thin by persons with vaata diseases, certain eye diseases like cataract, certain forms of Abhishyanda, etc. (Vaagbhata Sutra - Chap. 16-4-5),

Unfit for Sneha.

Persons with indigestion, acute fever, excessive weakness, anorexia, obesity, coma, incoherence, vomitings, thirst, tiredness and persons after taking alcohol, a purgative, enemata, emetics and in inappropriate season, on a completely rainy day when no sun can be seen (Durdinam); of women who have had abortion or miscarriage or difficult labour (Apaprasootha - Vaagbhata) and persons suffering from diarrhoea, throat diseases, acute poisoning, and Udara Roga - Such people should not use Sneha at all.

If pure Sneha (Achchapaana) in proper dose, is taken on empty stomach when all the food taken on previously has been digested, this Sneha is inductive to the eradication of the Doshaas (*Hyastane jeerna evaanne sneha achchah suddhaye bahuh* - Vagbhata). This Sneha may be called Sodhana. When the person is hungry and takes Sneha in medium dose, it is called Samana Sneha; it is taken alone with nutritious materials like meat juice (Maamsa Rasa), alcohol, etc., in small doses, it favours nutrition.

Diet in Sneha Karma.

If Sneha is taken before food it generally acts as a curative in diseases pertaining to lower part of the body; the Sneha used along with meals is useful in diseases of the thorax and abdomen; Sneha used after food is helpful in diseases of head and neck. Only hot water is to be drunk during the period of digestion of the Sneha. If there is any doubt as to its digestion, hot water is to be frequently taken till clear belching, lightness and appetite are noticed. After the completed digestion of Sneha, a weak and delicate person should take light food. The food should be easily digestible, hot and in liquid form and it should not cause Kapha. The person should use only hot water for purposes of washing the body or rinsing his mouth. Sexual intercourse or lustful thoughts, sleep in day-time, and wakefulness in the night are forbidden. He should

not stop the Vegaas. If there is frequent urge for stools, he should attend to them and on no account he should restrain them. He should avoid physical exertion, curb emotions like anger, grief and avoid exposure to cold, sun, draught, of wind, smoke, dust, etc. He should avoid journeying, riding, walking, speaking too much, inconvenient posture, inconvenient bed, etc. This procedure is to be strictly observed not only during the days of Snehapaana but also on the succeeding days. This procedure is also to be observed not only with regard to Sneha Paana but also with other methods like Vamanakarma, Vierchana, Vasti, etc. He should take hot water only and when the Sneha is digested, he should take Peya (a sort of Conjee or rice gruel) on that day. In this manner, the person has to take Sneha on each day for 3 to 7 days. After the end of 7 days Snehapaana is not necessary as it becomes a habit (Saatmyam).

Becoming Saatmyam means adjusting oneself with the Prakriti or becoming one with the bodily nature. Three days is the lowest limit for Sneha Paana (this is for persons of Mridukoshta) and seven days is the highest limit (for persons of Kroorakoshta or persons with habitual constipation). That is to say, a person has to take one suitable dose of Sneha each day and sustain himself on hot water or Peya for that day and this procedure is to be followed consecutively for three to seven days.

If the person happens to be weak, he may take light food that day, observing all the other precautions, such as avoidance of physical exertion, grief, etc.

If the dose is excessive or if the rules are not properly observed, inflammation of some part of the body, piles, sleepiness, itching, skin diseases including leprosy, vomiting, acute pains, tympanitis, vertigo, etc., may result.

In the cases which are the result of improper Snehapaana, the following measures such as fasting, restraint of thirst, emetics, sweating, Rooksha foods, medicines as Takraarishta, Vidala Rice, Barely, Gomoothra, Guggulu, and treatment specially for the complications and diseases are to be given.

After finishing the Snehapaana, the regulations of food, etc., are to be observed for one to three days or more; after taking Snigdha, Laghu food, the patient may undergo Swedakarma (Sweating). Such people as are plumpy or with much Kapha or those whose digestion is irregular (Vishama Agnayah) should not take Sneha first, they should take rooksha foods and drugs to eradicate Kapha, and then they should take proper Sneha after which only Sodhana is to be done.

Very weak people who cannot tolerate Snehapaana in any form have to take meat juice with a little Sneha or Peya with Sneha, powder of Sesame seeds, peya with milk, certain preparations containing ghee, curd, etc., or with salt. Such forms of sneha are called immediate Snehahas (Sadyah Sneha).

But in leprosy, Prameha (diabete etc.), skin diseases, swelling, etc., jaggery, meat, or aquatic birds or animals, meat of animals of Anoopadesa, Sesame seeds, black-gram, liquor called Sura, Curds, etc., should not be used (for they aggravate the diseases).

As regards Snehahas in biggest doses (that are digested only in 24 hours), hot water is to be taken at intervals with Ghrita, Yusha (Extracts of Mudga) etc., with Thaila and Manda (very thin rice conjee) with Vasa and Majja or only hot water.

Thus in a strong man of Kroorakoshta a biggest does of Sneha is to be taken daily with hot water at intervals and this procedure is to be followed consecutively for seven days. This constitutes one course of Snehakarmaas for that patient.

Good Results of Sneha Paana.

If Sneha is properly administered the following good results will be observed :—

The skin will be shiny, constipation is cured, and digestion is good. The limbs will be glossy. There is a feeling of lightness of the body, appearance of Sneha in stools. There is at that time heaviness and a dislike for Sneha (oily preparations).

A person should take Vamana (Emetic) two days after Snehapaana and he should take a purgative after an interval of

3 days after Snehapaana. Liquid (Snigdha), warm and nutritious food is to be taken in the interval between Snehapaana and Vamana or Virechana Karmaas.

VI

ROOKSHANA KARMA

(DRYING OPERATION)

Rookshana Karma is the opposite of Sneha Karma. This is to deprive the body of the excess of oil. It also sometimes means the removal of the excess of any fluid (the watery contents) of the body.

Definition of Rookshana.

A Rookshana substance is described as follows :—

“Rookshanam laghu kharam
Teekshna Uushnam sthiram apichchilam
Praayasah kathinam chaiva
Yadravyam taddhi rookshanam.”

—Charakasutra 22-14.

“That substance is called Rookshanam, which is dry, (Rooksha), Laghu (Light), Khara (Rough), Teekshnam (Keen), Uushnam (Hot), Sthiram (Steady - not slippery), and Apichchalam not sticky).

Probably, it is also hard. A Snehana substance is the opposite of the above. It is liquid, subtle, quickly spreading (Saram), Oily (Snigdhnam), Slippery (Pichchilam), Heavy (Guru), or cold (Seethalam). It is probably Slow (Mandam—and soft (Mridu).

Substances conductive to Rookshana.

Habitual use of substances which are hot, pungent, and astringent, excess as in sexual life, the use of Mustard and of Oil-cake made of Gingelyseeds from which all oil is removed, of butter-milk

from which all butter is removed, of honey, wines, etc., where substances are free from fat. These check the tendency to fat formation in the body.

Persons Fit for Rookshana Karma.

It should be noted that not only the increase of fat content but also the increase of moisture (Kleda) and softness (Maandya) and liquifaction (Vishyanda) are included in Sneha Karma. Rookshana on the other hand, means not only lessening of the fat content but also drying up the watery content and making the part harder and more solid.

“Roukshyam, kharatwam vaisadyam
Yat kuryat taddhi rookshanam
Snehaam snehana vishyanda
Maardava kleda kaarakam.”

—Charaka Sutra 22 V. 10.

Persons Fit for Rookshana.

Persons suffering from diseases in which there is excess of discharge, in which the doshaas are very predominant, in diseases which are located in Marma Sthaanaas (vital parts) and persons suffering from diseases such as Oorusthambha, in which Kapha and Aama are predominant, Prameha in which Kapha is the Chief Dosha may also be fit for Rookshana. Karma Sutra 22, 30.

Symptoms of Proper and Improper Rookshana.

The signs and symptoms of proper and improper Rookshana are respectively those of proper and improper Lankhana. In other words, just as Langhana reduces the fatty and watery contents of the body, so also Rookshana reduces the fat and moisture in the tissues. Therefore the Signs and Symptoms of over doing the Rookshana Chikitsa resemble those of Langhana Chikitsaa. As in the case of the other five operations, the signs and symptoms of proper Rookshana treatment are the feeling of relief that the patient experiences. If the operation is not performed satisfactorily,

the Doshaas may be disturbed and instead of relieving the symptoms the treatment may make the disease worse.

Sneha Sweda and Rookshana Sweda Karmaas.

Sweda Karma may be lubricatory or dry. Exposure to the sun or hot air and fomentation with hot sand are examples of Rookshana Sweda. Sweating by the application of a steam-bath or after anointing with oil even with hot air is an example of Snigdha Sweda. In diseases in which Kapha is predominant as in Prameha, Rooksha Sweda may be advocated. In Vaata diseases where there is pain or dryness, Snigdha Sweda is to be recommended. This makes all the difference in the cure of the disease or in making the disease worse than before (See Principles of Diagnosis by the Author).

Snigdha and Rooksha Vasti.

Enemas with oily substances are Snigdha Vastis and Enemas with decoctions not containing oil are Rooksha Vastis.

Some of the Snigdha Vastis are used for Samana or soothing purposes and others for Brimhana or nutritive purposes but Rooksha Vasthis are Sodhana (Cleaning) and Langhana (reducing) generally.

Snigdha and Rookshana Virechana.

Milk freely taken is an example of Snigdha Virechana. Lehyams in which ghee enters in a large measure such as Thrivrit Lehyam are partly nutritive and partly laxative. They are called Mrudu Rechana. Medicated Ghees may be given for Sodhana purposes. On the other hand, Danti and Sunthi are Teekshana Rechana. They are more Sodhan and Rooksha.

Snigdha and Rookshana vamana.

In Pregnancy, violent vomiting and purging are prohibited. But, when it becomes necessary (Aatyayika conditions), Snigdha Vamana and Rechana are indicated; Milk and Yastimadhu are recommended in such cases to induce Vamana Copper Sulphate etc., belong to Rooksha Vamana.

Snigdha and Rooksha Nasya.

Sunthi, Maricha, etc., administered, as fine powder into the nose are examples of Rooksha Nasya and Oils such as Chandanaadi dropped into the nose is an example of Snigdha Nasya.

In this manner, we have to judge the Vaata, Pitta and Kapha predominance and adopt the Snigdha and Rooksha treatment suitable to the deliviate conditions in which the variation exist in each disease and in its different stages considering the time, the locality of the body where the disease exists and the season of the year and the time of the day and night.

General Remarks.

These subtle differences are not observed in Allopathy. For instance, in the case of dry eczema, if instead of applying soothing oily preparation, we use Rooksha and irritating substance, the disease instead of being alleviated, becomes worse and if the physician persists in it, the more grave the disease becomes. If once, the line of treatment is changed, the result will surprisingly beneficial. Similarly in a case of a paralytic or sinking limb with burning sensation, dryness and pain, Vaatahara treatment with soothing oils effect a miraculous cure where other treatments fail.

It is therefore said that a physician should know the six operations of Brimhana, Langhana, Snehana, Rookshana, Swedana and Sthambhana in a very intimate manner.

VII

SWEDA KARMA

(SWEATING TREATMENT)

Sweda Karma may be defined as the act of sweating of a part or whole of the body.

The perspiration may or may not be visible outwards. Visible perspiration usually occurs under hot air baths, vapour-baths, etc., while invisible perspiration occurs usually under cover of

certain plasters, poultices and blankets and in a room from which the draught of air is excluded (Nivaata). Sweda Karma is enjoined in certain Vaata or Kapha or Vaata-kapha types of a disease. It is not recommended in the excitement of Pitta.

Varieties of Sweda Karma.

Sweda Karma is two fold:—(1) Snigdha Sweda and (2) Rooksha Sweda.

Fomentations, with heated ghee, or oily substances, and vapour baths containing moisture are examples of Snigdha Sweda. Fomentations with heated sand, brick powder or husks of Cereals, hot air-baths, Sun-bath etc., are instances of Rooksha (dry) Sweda. In Vaata type of diseases usually Snigdha Sweda is required while in kapha types of diseases, Rooksha Sweda is necessary. As an example of an exception to this rule Snigdha is required in disorders that result from vitiated kapha only when it affects the Pakwaasaya (the seat of Vaata); while Rooksha Sweda is required when vitiated Vaata is lodged in the Aamaasaya (the seat of Kapha). Since Vaata possesses qualities of Rooksha, Seetha, Khara, etc., Snigdha Sweda which has the opposite qualities of Ushna and Mrudu is usually needed. Similarly, Rooksha Sweda which confers Rooksha Guna (dryness or non-oiliness), Ushna Guna (heat), Teekshna Guna (opposite of Manda Guna or Sluggishness), Laghu Guna (lightness) is useful in Kapha vitiation which exhibits snigdha (Oily), Seetha (Cold), Manda (Sluggishness), Guru (Heavy) Gunaas. There are twenty Gunaas in all mentioned relating to any dosha or disease or to the food or the conduct, in Aayurveda. For example:— Sleep induces Snigdha Guna; Vyayaama induces Laghu Guna and so on. Similarly, drugs (time morning, midday and evening and night) and different seasons have all their influence on Sweda Karma.

This knowledge is most essential in determining suitable treatment in Aayurveda; the rationale or the genius of Aayurvedic treatment can never be appreciated without a knowledge of those details of the properties of the Doshaas. It should be remembered that similar Gunaas (Like-Gunas) or qualities increase with the

addition of others, while dissimilar Gunaas antagonise or annihilate each other when they are brought into contact. This is a simple natural law which is applied in Aayurvedic treatment. When icy cold water and hot water are mixed together, warm water is the result, the degree of temperature varying according to the intensity of heat and coldness mixed together. In the same way, Rooksha Guna in the body decreases when Snigdha Guna comes into contact with it through any agent (food, medicine or conduct). The phenomena of the body as of the world, increase when similar phenomena are added to them and decrease or dwindle when dissimilar phenomena are added to them. When these phenomena which depend upon the Dravya (Substances), Guna (Quality) and Karma (Action), exist in the living body in a harmonious combination, that state of the body is called health. The lack of harmony is ill-health or disease. The object of the physician is to understand carefully and vividly the various phenomena which cause ill-health and to correct them by proper applications of similar or dissimilar phenomena in a natural or convenient way. The three most important categories on which these natural phenomena depend are Dravya (Substance), Guna (Quality), and Kriya (Action). These three should be adjusted harmoniously to the environments of the human being.

Thus in Vaata diseases which are usually exhibited by Rooksha, Seetha, Khara (Rough), and Laghu Gunaas (Qualities), Snigdha Sweda which induces Snigdha (opposite of Rooksha), Ushna (opposite of Seetha) and Mridu (opposite of Khara) qualities in the body naturally and which tends to stop or correct the diseases process (of Vaata) should be adopted. If the process of disease is an obstinate one or one which is an aggregate of its qualities in an intense degree, the operation may have to be repeated a number of times until the desired effect is produced. This principle of suitable application of unlike Dravyaas, Gunaas and actions in diseases, so as to get rid of the diseases, is to be understood with regard to every dosha or doshaas, their various combinations and the natural build of the body, the Prakriti, Saatmyata, Satwa, Kaala, Bala, etc., and this is the crux of the Aayurvedic Treatment.

In combinations of vaata and kapha both Snigdha and Rooksha Swedaas may have to be done, or one may be followed by another or repeatedly, according to the peculiar combinations of the Doshaas and the locality of the disease.

A simple bath with the hot decoction of Black-gram Tila, etc., is an instance of Snigdha Sweda. Sitz-bath, douches (Parisheka) with hot fluids, plasters, poultices, etc., are included under the term Sweda Karma. Hence, by mere mention of Sweda Karma any indiscriminate fomentation or application should not be done.

Sweda Karma is of three kinds:- (1) Mridu (Mild), (2) Madhya (Moderate) and (3) Teekshna (Intense). These are used according to the strength of the patient or location of the disease, or season or intensity of the diseases, etc.

Sweda Karma is again of two kinds, namely, (1) Ekaanga Sweda or that pertaining to the part of the body affected or limb, and (2) Sarvaanga Sweda or that pertaining to the whole body. Thus a poultice or plaster or fomentation to a particular part of the body is an instance of Ekaanga Sweda, while a hot bath, hot air bath, vapour bath, etc., which are applied to the whole body are instances of Sarvaanga Sweda. The point is that in certain diseases such as localised Vaata diseases, Ekaanga Sweda (Sweda applied locally) usually suffices, while in certain general diseases such as Jwara, certain chronic diseases and very obstinate Vaata disease processes and when any of the purificatory (Sodhana) operations like Vamana, Virechana, Niroohavasti etc., are undertaken, Sarwaanga Sweda (Sweda applied to the whole body) is necessary. In certain Vaata diseases both may be necessary.

13 Forms of Sweda Karma.

Charaka has mentioned 13 kinds of Sweda Karma. They are :- (1) Sankara Sweda, (2) Prastara Sweda, (3) Naadee Sweda, (4) Parisheka Sweda, (5) Avagaaha Sweda, (6) Jentaaka Sweda, (7) Asmaghana Sweda, (8) Karshoo Sweda, (9) Kutee Sweda, (10) Bhoo Sweda, (11) Kumbhika Sweda, (12) Kooapa Sweda, and (13) Hoolaaka Sweda.

1. *Sankara Sweda* : This is also called Pinda Sweda. Gingelly Seeds (Tila), Black-Gram (Maasha), Horse-Gram (Kuluththa) or such other substances or meat juice and boiled and mixed with ghee or oil; rice-boiled along with milk or boiled with water and made into very thick jelly (Conjee) or boiled meat; any of these is usually put in a cloth when the substance is hot and made into a bundle and fomentations are applied with the bundle to the whole body or to a part after smearing the part with oil. This is called *Sankara Sweda* or *Pinda Sweda*.
2. *Prastara Sweda* : Empty husks of paddy or bran of pulses should be well heated and spread on the floor. On these hot substances a thin mat (preferably made of Kusa Grass) or fresh Eranda leaves or Arka leaves are to be spread, and on this the patient lies down. When the patient has his body previously smeared with oil and lies on the mat or leaves thus spread, a thin cloth is spread over the patient's body and heated husks are put on this cloth, so that the patient is well nigh covered with heated husks all over (except of course the face). Various hot thick gruels, boiled pulses (Masha etc.) may be substituted for husks.
3. *Naadee Sweda - Steam Bath* : Instead of mere water, steam arising from decoctions of various Vaatahara leaves, fruits and meat mixed with milk or cow's urine, salt and certain sour substances (Kanjika) are also advocated for their medicinal effect. The selection of these ingredients for the decoctions should be made by the proper evaluation of their gunaas to suit the disease. Any apparatus to conduct steam properly and in sufficient quantity may be used. The patient is advised to sit or lie down with his body wrapped in a thick blanket and the steam should be made to come into contact with the whole body. The steam arising from various decoctions is necessary and mere steam obtained from boiling water is not so very useful although it also causes sweating. It need not be

- said, that the patient should be smeared with a Vaatahara Thaila before the application of this Sweda.
4. *Parisheka Sweda* : Decoctions are to be made of Vaatahara or Vaatakaphahara drugs according to the Doshaas prevalent in the patient. The patient is to sit with his body smeared with Vaatahara oils and wrapped up in a thin cloth and then the decoctions are to be poured or sprinkled over him when they are tolerably hot or they may be adjusted so to pass through a shower-bath apparatus.
 5. *Avagaaha Sweda* : The patient should sit in a tub filled with a tolerably hot, vaatahara or kaphahara decoction or other material like oil, milk, etc., after smearing his body with Vaatahara oil. This is a Plunge-bath.
 6. *Jentaaka Sweda* : A compact shed with windows is to be constructed in an even place near a tank. In the middle of the shed, there should be an elevated (raised) area with a bed on it and the way from it to the exit (door) should also be raised to the same level. Fuel, probably of Khadira or Aswakarna tree is to be burnt in the shed, care being taken that the elevated spot with the bed and the way to the exit does not come into contact with the fire. When all the firewood is burnt and all smoke has gone out through the windows, the windows are closed. The patient whose body is smeared with Vaatahara oil and who is wrapped in a thin cloth, then enters into the shed, carefully through the gate and along the elevated path-way and lies on the bed for a while. When his body is thoroughly sweated and when he thinks that he cannot bear the sweating any longer he carefully comes out by the elevated area. He should not wash his eyes, or his face or any part of the body suddenly with cold water, nor should he expose himself to the cold draught suddenly. He should wait wrapped in warm cloth for sometime i. e., till he feels normal. He then takes a comfortable bath with hot water. This is a kind of Turkish Bath.

7. *Asmaghana Sweda* : A big flat stone slab enough to hold a person in the lying posture is to be heated with Vaatahara fuel having been burnt on it. When the fuel is burnt well, the fire and ashes are all taken off and a silk cloth or blanket or some fresh vaatahara leaves such as Eranda or Arka are to be spread over it. The patient, having smeared his body with Vaatahara oil is to lie on it and cover his body with a silk cloth or blanket or some skins till he sweats profusely. He remains there till the desired period. This is called Asmaghana Sweda.
8. *Karshoo Sweda* : Somewhat deep pit is to be dug in even ground and the pit is filled with live charcoal (fire). A cot is to be arranged over the pit and the patient, after smearing his body with vaatahara oil, lies on the cot thus provided and he covers himself in a cloth. He should lie on that cot or bed till he sweats to the desired extent. This is called Karshoo Sweda. In Karshoo Sweda, the pit may have a narrow opening but it may be wide inside.
9. *Kutee Sweda* : A cot is to be placed in a compact chamber with thick walls. The walls should be smeared with pastes of Kushtam, Tagara, Agaru, Sataawari, etc., i. e., volatile, or fragrant substances useful for Upanaaha Sweda. Fire pans containing smokeless fire have to be placed around the cot, while the patient lies on the cot with his body smeared with Vaatahara oil and covered with a thick cloth. As this Sweda is done in a Kutee or Shed, it is called Kutee Sweda.
10. *Bhoo Sweda* : A strip of land spacious enough for a person to lie over is dug out into a shallow pit; Khadira wood or some other suitable fuel is burnt for a while and the fire is quenched with Dhaanyamaala or milk or water and the charcoal is taken off and the pit is cleared out. Spreading Vaatahara leaves (Eranda or Arka) in the pit, the patient is to lie down on those leaves with his body previously smeared with Vaatahara oil and then covered with a blanket.

11. *Kumbhika Sweda* : A big kettle is to be placed in a pit, so that its mouth is open and is on the level with surface of the ground. Vaatahara decoctions are to be poured and well-heated stones, metal pieces, etc., are to be gently dropped in the kettle. Quickly arranging a seat or bed on the kettle, the patient should sit or lie on it having been previously smeared with oil and then covered with a blanket. The steam arising out of the kettle through the seat or bed, comes into contact with the body of the patient and thus he undergoes Kumbhee Sweda or Kumbhika Sweda.
12. *Koopa Sweda* : A pit, fairly deep like a well is to be dug on an even ground, which is free from winds and in it cowdung cakes, or dried dung of horse, elephant, donkey, or camel are burnt and when it is devoid of smoke, a cot with a suitable bed is to be arranged over the pit covering it completely. The patient smeared with vaatahara oils, lies down on the bed covered with a cloth or blanket till he sweats. As the pit looks like a Koopa (well), it is called Koopasweda.
13. *Holaaka Sweda* : On an even ground, cow-dung cakes or the dried dung of horse, etc., should be placed. The space thus occupied by the dried dung should be according to the length and breadth of a bed to be placed over it. After the dried dung is well burnt and is devoid of smoke, a cot is to be placed over the heap. The patient should lie on the cot after the usual smearing of vaatahara oil covering himself with a thick cloth or a blanket. This is called Holaaka Sweda. There is no pit here. The fuel is heaped up on the ground on which a cot is placed in a comfortable manner.
14. *Upanaaha Sweda* : Upanaaha Sweda is the process of poulticing or plastering or applying pastes (boiled or unboiled and cold or warm) upon the skin. Yeast (Kinwa), buttermilk, or fermented acids are generally used for preparing these poultices. The following substances are

useful for Upanaaha Sweda. Wheat-flour, Barley-flour, mixed with sour substances like buttermilk, the thick part of liquor (Yeast-Surabeeja) or Kaanjika and some amount of salts and oils (mustard oil etc.) These are well mixed and may be boiled and when the mixture becomes warm, it is to be applied next to the skin and is covered with a silk cloth or a skin or a piece of blanket is wrapped round it and tied. Similarly any Kalka (Pulp) of vaatahara drugs mixed with buttermilk or Kanjika and salt and boiled and may be applied when it is pleasantly warm (Sukhoshnaih). The ingredients of Kakolyaadi Gana, Elaadi Gana, and Surasaadi Gana may be used in the above manner mixed with salt etc., Mustard paste of Tila seeds (Sesamum) or Atasee (Linseed poultice) prepared in the above manner of thick gruels of various combinations such as milk, and rice etc., may be applied and a thin or thick cloth is covered over it and tied. A variety of Upanaaha Sweda called Salvana is advocated for frequent application in vaata diseases. It is prepared as follows :— The flesh of birds and animals of Anoop Desa (damp country) and aquatic animals is well crushed and mixed with various oils and salt and is boiled and applied when it is pleasantly warm. Saarangadhara advocates the use of Mahaasaalvana which contains many more ingredients than the Saalvana and this is advocated in many vaata diseases. Various poultices, cold and warm, are forms of Upanaaha Sweda. It is usually vaatahara; but it may be used also in kapha associated with vaata, especially with Surasaadigana; or it may be used in vaata associated with pitta also along with Padmaakaadigana. In all cases, the pastes are tightly or compactly tied with skins or blankets or thick cloth etc., otherwise mere application of pastes may be termed as Pradeha or Aalepa etc. and not Upanaaha. The substance applied in the night, should be removed the next morning and another should be applied in the morning. This is to be removed by the night except in very cold seasons, when the interval

may be prolonged. Upanaaha may be applied even at the intervals of 3 or 4 days, so that the heat of the poultice may be kept up. The word Upanaaha is derived from the verbal root which means banadaging (Naha Bandhane in Sanskrit).

Susruta's Classification of Sweda Karmaas.

Susruta and others (Vaagbhata and Saarangadhara) also have included all these Swedakarmaas (above said) into four main categories, namely, Taapasweda, Ooshmasweda, Upanaahasweda and Drava Sweda. Thus Jantakasweda, Karshoosweda, Kuteesweda and Hoolaakasweda are included in the term Taapa Sweda. Sankarasweda, Prastarasweda, Asmaghanasweda, Kumbheesweda and Bhoosweda are included in the term of Ooshmasweda. Upanaahasweda is treated as a separate entity by itself. Parishekasweda and Avagaahasweda are included under Drava Sweda. Susruta Chikitsa—Ch. 32.)

Usefulness of Various Swedakarmaas in Various Doshaas.

Usually Taapasweda and Ooshmasweda are useful in counter-acting Kapha; Upanaahasweda usually checks Vaata; Dravasweda is useful in Kapha or Vaata when it is mixed with Pitta (Susruta).

Niragni Sweda Karma (Sweating without Fire).

Apart from the above processes, there are other natural Swedakarmaas, which are especially indicated in persons with Vaata combined with Medas and/or Kapha. They are, (1) sitting in a closed room which is free from draughts (Nivaata), Sunbath, by wrapping oneself with heavy blankets, wrestling, walking great distances, physical exercises, carrying weights and inducing emotion of extreme anger. These processes also cause sweating to some extent.

Delicate Parts.

The Heart region (Hridaya), Testes, and Eyes should receive a very low degree of Swedakarma or it should not be applied to them at all. Groins and Lower Abdomen should receive moderate

Sweda. Delicate parts such as eyes and heart region should be covered with betel leaves or wheat paste or some good heat protector should be applied to them lest the heat should cause injury to such parts. The rest of the body may be subjected to a more powerful Swedakarma according to necessity. The Swedakarma should be stopped when the chill or pain or rigidity (Sthambhana) or heaviness ceases to exist either on the side of the body or in the limb affected by the disease.

Dangers of Excess of Sweda Karma.

Vitiation of Pitta (Pitta Prakopa), loss of consciousness, langour (Exhaustion of the body), thirst, burning in the joints (Sandhi Peedaa), a sort of pimples or blisters (Sphotah), vertigo, and vitiation of Rakta may result from excessive application of Swedakarma. Cool measures, a cool house and applications and all measures advocated for people in summer season, may be administered as an antidote. (Susruta Chikitsa.)

Diseases Where Swedakarma is Useful.

Corryza (Pratisyaaya), Cough (Kaasa), Hikka (Hiccough), hard breathing (Swaasa), feeling of heaviness of the body, earache, pain in the neck, headache, derangement of voice, constricting sensation of the throat (Galagraha), Goitre, facial Palsy (Ardita), Paresis of a Limb (Ekaanga Vaata), paralysis of several limbs (Sarvaanga Vaata), Hemiplegia, Vaata disorders which cause crookedness or deformities of the body, distension of the abdomen, retention of Malaas such as stools, urine, etc. (Vibandha), affection of Sukra by the Doshaas, Opisthotonus (Bahyaayaama), sensation of constriction or rigidity of sides (of the chest), or back or loins or lower abdomen, Sciatica (Gridhrasee), Dysuria (Mootrakrischra), swelling of the testes, bodily soreness (Angamarda), rigidity and pain of feet or knees or thighs or calves, inflammation or swellings (Swayadhu), deformities of hands or feet (Khallee), shaking or shivering, Vaatakantaka (Pain in the heel), contraction or shrinking of limbs (Samgraha), relaxation or dilatation or bending of limbs (Aayaama), pain, stiffness (Sthambha), heaviness (Gourava), frigidity (Supti), of any part or disorder that pertain

to the whole body (System) call for the application of Swedakarma.

Conditions Where Swedakarma is Forbidden.

Persons addicted to alcohol, pregnant women, persons suffering from Raktapitta, pitta diseases, diarrhoea, excess of dryness of Dhaathus (Rooksha), Prameha diseases (Severe types of Diabetes and the like), proctitis (Vidagdhabradhna), Prolapses Ani (Brashtabradhna), diseases due to poisoning or alcohol, Exhaustion, unconsciousness, obesity, Pitta Pramehaas, thirsty or hungry people, persons affected by intense anger or sorrow or suffering from jaundice, Udara disease, injuries, Vaata-rakta, debilitated persons, persons very much emaciated, or persons in whom Ojas is very much reduced, or suffering from Timira disease (Cataract, diminishing vision, etc.) should not undergo Swedakarma. Susruta says further that Swedakarma should not be administered in Paanduroga (Anaemia), consumption (Kshaya), indigestion (Ajeerna), vomiting (Chardi) or a person who has already been under influence of alcohol (Peetamadya).

Time and Place of Swedakarma.

All the Swedakarmaas have to be done for a person whose last meal has been well digested, and in a place which is free from draughts of wind. Invariably (except in cases of Navajwara, etc., where it is explicitly forbidden), the patient's body should be smeared with medicated oils or some Snehaas; his eyes etc., should be protected by covering them with lotus leaves, etc., so also the heart region should be kept cool by the application of cool substances.

After proper application of Swedakarma, the person's body should be well rubbed (Vimriditam) and massaged and then he should take a comfortable hot water bath. He should be properly covered with good clothes and sit or lie down in a comfortable place, which is free from draught or wind or sun for some time. Afterwards he should take a good meal which is Snigdha, Ushna etc., but not Kaphakara. On that day, he should observe the

conduct (Aachaara) as advocated for Snehakarma (such as Brahmacharya etc.).

Swedakarma should also be done for a person in whom Nasya Karma or Vasti Karma is to be done. Any persons who have to be got rid of the Doshaas by Sodhana Karma (Sodhaneeyaah) should receive Swedakarma.

“Yeshaam nasyam vidhaatavyam
Vastischaiva hi dehinaam
Sodhaneeyaascha ye kechit
Poorvam swedyaastu te mataah.”

—Susruta. Chi.Ch. 32, V. 17.

When Salya (foreign matter) is extracted or after proper labour or difficult labour even without complications, Swedakarma is to be performed. Swedakarma is to be performed before and after the surgery of Bhagandhra (Fistula in Ano), Arsa (Piles), and calculus (Asmaaree).

Similarly, Swedakarma should never be done unless his body is comfortably lubricated (smeared) with oil or unless his body has become Snigdha (Oily) with a proper previous applications of Sneha through Sneha Karma or his food.

A dry stick without proper lubricant breaks, when more fire (heat) is applied and forcibly bent. So also the body breaks if heat *i. e.*, Sweda Karma is applied without proper lubrication.

Importance of Sweda and Sneha in Chronic Diseases.

In health, the three dhaatus, namely, Vaata, Pitta and Kapha have their abode in the Koshta as follows:— Vaata exists principally in Pakwaasaya below the navel; Pitta in the Naabhi (in the centre) and Kapha in the Uras (above the Centre). These Dhaatus are called Doshaas when they are abnormally accumulated (Vridhdha) or shrunken (Ksheenah) or vitiated (Prakupitaah). The vitiated doshaas may cause certain diseases even in the Koshta, the Alimentary Tract. Sometimes these doshaas may extend to other regions, such as Saakhaas, or Marmaasthi San-

dhees. Saakhaa is the technical term for Rakta-Dhaatu, Maamsa-dhaatu, Medodhaatu, Asthidhaatu, Majjadhaatu and Sukradhaatu and Twak (Here the use of the term Twak is used to denote the Rasadhaatu, which is situated in the region of the Twak. This is also recognised as a Saakha).

Then, there are the Asthi Sandhees or joints of bones and Marmaas (vital junctions). The Doshaas after being vitiated may be located anywhere in these three regions. These three regions are therefore called the three main paths through which the Doshaas travel and they may cause diseases by being obstructed in their circulation. All diseases (acute or chronic) are said to be located in these three different bases, which are called Rogamaargaas.

A disease having Koshta as its base may be easily eradicated. The same disease if located in the Saakhaas takes a longer time to be cured and is cured with much difficulty. A disease with its base in the Marmaas or Asthisandhees takes a still longer time or may not completely be cured. In any case, the radical cure depends upon the Dosha or Doshaas coming to the Koshta from the Saakhaas or Marmaasthi Sandhees. They should be brought so as to be easily eliminated from there. For instance, in fever caused by doshaas which have as the base, Koshta, is easily curable, whereas a fever with doshaas having their base in the Saakhaas (such as Malaria, Septicaemia) is difficult to cure and a fever with the doshaas having their base in Marmaas or asthi Sandhees (such as Malignant Endocarditis or fever occurring in Tuberculosis, etc.) is very difficult to cure or it sometimes becomes incurable. Thus, when the doshaas are vitiated and when they extend to Saakhaas or Asthisandhees from koshta, they may become lodged or set stuck up in various dhaatus causing various diseases, if their progress is not checked in the first three Kriyaakaalaas of Samchaya, prakopa and Prasara. If the Stotases are clear, the Doshaas may come back to the Koshta from the Saakhaas. This may not occur of its own accord. Swedakarma preceded by Snehakarma causes these doshaas which are stuck up in the Srotases to recede back into the Koshta. Vyaayaama and Apatarpana, etc., may also cause their

return to the koshta to some extent. But, Swedakarma is the most potent of all the methods as it can melt any small amount of dosha stuck up even in any of the minute srotases. Thus, Swedakarma, (preceded by Snehakarma without which it may even be harmful) causes Srotassodhana i. e., the purification of srotases and causes any of the doshaas remaining in the Srotases of the Saakhaas to recede back into the Koshta, when elimination of the doshaas by Niroohavasti or Vamana or Virechana or Nasya makes the task of treatment less complex.

“Snehaklinnah dhaatu samsthaascha doshaah
Swasthaanasthaa ye cha maargeshu leenaah
Praaptaah koshtam yaanti dehaat aseshaat.”

—Susruta, Chi. Ch. 22. V. 21.

(For further details of Doshaas in Saakhaas, Marmaasthi Sandhees and Koshta, See Pathology.)

It is emphatically stated in Aayurveda that without previous Abhyaasa (practice or repeated administration as deemed necessary) of Snehakarma and Swedakarma, Samsodhana Karma, i. e., Vamana or Virechana or Niroohavasti or Nasyakarma also called Seershavirechana should not be done.

“Sneha swedau anabhyaasaa
Yastu samsodhanam pibet
Daaru sushkamivaanaame
Dehahstaasya viseeryate.”

—Susruta, Chi. Ch. 23. V. 45.

If a man takes Samsodhana treatment without the previous administration of Sweda Sneha Karmaas his body perishes just like a dry stick, which breaks down when it is bent without proper lubrication and heating.

“Sneha swedaprachalitaah
Rasaih snighdhaih udeeritaah
Doshaa koshtaanugaah jantoh
Sukham hartum visodhanaaih.”

—Ibid - V. 46.

If the doshaas are moved from their places (stuck up in their bases and thereby causing disease) by Sneha and Sweda Karmaas and if they are propelled by their administration of Snigdha Rasaas, they come to the Koshta (from Saakhaas) from which it is easy to extract them out (Sukham Hartum) by Sodhana Karmaas (Visodhanaih). Hence Sneha and Sweda Karmaa occupy a very important role in the Aayurvedic treatment.

VIII

VAMANA KARMA

(TREATMENT BY EMETICS)

A Wise Physician should devise his own Treatment.

Only the principles of Pancha Karma treatment are broadly enunciated below. A wise physician should think, argue and devise for himself his own line of treatment and the particular recipes suitable for the constitution of the patient in relation to Desa, Time, Habits and Strength, etc.

“Avasthaa desa kaala balam pratee.”

—Charaka Siddhi - 2, 25, 27.

Charaka gives recipes for 600 emetics and purgatives merely as samples, and he says that this does not at all exhaust his list.... The physician by his own intellect should multiply the recipes to thousands and even to a crore.

Emetics and Purgative by Mere Smell.

Charaka gives recipes for causing vomiting by merely smelling a flower like lotus impregnated with the fine dust of the Bitter-Rib-Gourd.

“Dhaamaargavaa-kalpa
Ghaatva vamet sukham.”

Similarly a purgative is prescribed out of the milk of Sudha, a kind of Euphorbia which is dusted on a flower garland or a handkerchief and which easily causes the required number of motions only by its fine fragrance.

Definition.

Vamana or administration of Emetics is one of the series of Pancha Karmaas. This is a Sodhana Karma or purifying operation with regard to Kapha dosha. The aims and objects of administration of Vamanakarma are different from and more comprehensive than those of the administration of emetics in modern medicine.

Hale White's *Materia Medica* (1944 edition) reads thus—Emetics have two uses—first to remove the contents of the stomach as in cases of poisoning and secondly emetics are used to expel the contents of the air passages especially in children, for they cannot expectorate well. For this purpose these drugs (Apomorphine, Zinc Sulphate, Ipecacuanha, Tartar Emetic, Alum, Mustard, Sodium Chloride, Copper Sulphate, etc.) are given in full emetic doses to assist expulsion of secretion in, for instance, bronchitis. In choosing an emetic, it will be remembered that although Apomorphine, Ipecacuanha and Tartar Emetic are the most powerful, they are the most depressant and are therefore not suitable in any cases—such for instance, as poisoning accompanied by severe collapse. When the drug is a powerful Gastrointestinal irritant, if the condition of the mouth and Oesophagus will allow it, it is preferable to wash out the stomach rather than to use an emetic.

Unfit for Emetics

Emetics are not permissible for patients suffering from Aneurism, Hernia, Prolapse of the Uterus or Rectum, Peritonitis or a tendency to Haemorrhage, because of the straining induced by the vomiting, which should make us cautious in giving it to those who have disease of the vessels or high tension in them, for the straining may lead to haemorrhage."

Difference between Administration of Emetic and Vamana Karmaas.

Vamana Karma is not done merely with the object of relieving of the stomach of its contents, especially poisons and to clear out the air passage of children as stated above, but in Aayurveda, when there is exhibition of kapha symptoms such as heaviness of the body etc., and when doshaas affect the Aamaasaya of the Uras principally—this Vamanakarma is called for and that too after the preliminary treatment with Sneha and Sweda in a suitable manner. These injunctions will be set forth below and if carried out, no untoward symptoms such as depressions and Gastro-intestinal irritation should result. Moreover, in Aayurvedaa, the drugs used such as Madanaphala, Pippali, Nimba, Kutaja seeds, etc., (except Sodium Chloride) are of vegetable origin and are not minerals such as Tartar Emetic, etc., are therefore not so poisonous and depressant. Their selection, again, depends on the condition of the Doshaas presented by the patient, (e. g.), Nimba is used in Kapha mixed with Pitta, Pippalee, and Madana are used in mere Kapha, Pipali with Honey and Salt (Sodium chloride) in Kapha mixed with Vaata affecting the Aamaasaya and so on.

Hernia (Aanthra Vridhi), prolapse of the rectum (Gudabhramsa) and of the uterus, etc., are vaata diseases and it may be seen clearly that Vamanakarma has been prohibited in vaata diseases in which vaata has nothing to do with Kapha Sthaana. As regards tendency to hæmorrhage in certain cases of Adhogata Rakta Pitta, Vamanakarma is advocated on the principle of Gati, i. e., to effect a diversion of Dosha upwards, in order to check hæmorrhage going downwards.

Hence it is necessary to consider all these points of view before the administration of Vamanakarma, which is the most effective method for the eradication of Kaphadosha and without which, all that is desired to stem the tide of the disease may not be possible. Vamanakarma is to be done when kapha or any other dosha which is located in Aamaasaya or Uras is in a state of mobility (Prachalita Dosha). If the dosha in the Aamaasaya or Uras is not mobile,

it should be made mobile by freely administering kapha increasing foods on the previous day. Except in cases like acute fever, caused by too much indigestible food (Nava Jwara) or any other acute disease, Snehakarma and Swedakarma should be properly administered before administering Vamanakarma. This rule may not be observed in poisons and in acute diseases but in subacute and chronic diseases, it is absolutely necessary. The state of Dosha in Aamaasaya or uras is to be found out from the symptoms presented by the patient. If Kapha dosha is spread throughout the body, without being located in the Aamaasaya or Uras, in considerable quantity, Sneha, Sweda, Paachana etc., have to be sufficiently administered in order to bring down the dosha to the Uras or Aamaasaya, wherefrom it may be expelled by suitable emetics. So also, if Aama dosha is co-existing with Kaphadosha in a considerable quantity, and when both are spread throughout the body, Langhana alone would be of service with the auxilliary Paachana medicines according to the necessity. These rules apply to the other kinds of Sodhana also.

The necessity for Sneha and Sweda Karmaas.

“Sneho anilam hanthi mrudoo karoti
Deham malaanaam vinihanthi samgham
Snigdhasya sookshmeshvayaneshu leenam,
Svedasthu dosham nayati dravatvam.”

Lubrication checks Vaayu; softens the tissues (Deham) and separates the debris (Malaas) from the healthy tissues.

Sweating, if it is conducted after proper lubrication, liquifies the debris which is entangled in the tiny channels. In order to enhance the effect of Sneha and Sweda, Kapha or moisture should be increased by the previous administration of milk or other Kapha increasing foods.

In a chronic disease, such as Prameha, Kushta, Apasmaara, etc., which is caused principally by Kapha Dosha or by any other Doshaas located in Aamaasaya or Uras along with Kapha, the preliminary process of Snehakarma and Swedakarma has to be

sufficiently executed before Vamanakarma is administered, carefully regulating the diet and other habits all the while. Such processes were described by Charaka and Susruta in the following manner:

The patient is to undergo Snehakarma along with proper diet. Usually three to six days elapse in such a course. Swedakarma suited to the constitution and the Dosha vitiation of the patient is next administered. If the patient is in the habit of taking Snigdha foods, he may have Swedakarma administered on the next day following Sneha Karma. He has to take Abhishyandi or Kapha producing foods such as Anoopamaamsa or milk or black-gram etc., on the night of the next day. This act of eating such foods increases Kapha and this increased kapha makes the old stationary kapha somewhat mobile. If the static dosha is thus made mobile, it may easily be removed by the administration of a proper emetic.

“Pesalaih vividhaih annaih
Doshaan utklessya dehinah,
Snigdhaswinnaaya vamanam
Dattam samyak pravartate.”

—Susruta - Chikitsa 33, 6.

Procedure.

On the morning of the next day, a proper dose of the emetic is to be administered. The decoction of Madanaphala is advocated as the best. Honey, decoction of Yasthimadhu, Saindhava (rocksalt) and some quantity of Phaanita (Syrup of Jaggery) are added to it according to Charaka. Not only Madanaphala, but Jeemootaka, Ikshwaaku, Dhaamaargava, Vatsaka, Kritavedhana, etc., are advocated by Charaka. Charaka has given 355 recipes of Emetics principally based on these drugs in Kalpastaana. He has given recipes in the form of powders, confections, Lehyams, inhalations, etc. He however, says that Madanaphala is the best emetic. All these recipes are given by him to suit different constitutions, temperaments, diseases, tastes, habits, etc.

Selection of the emetic.

The broad principles of selection of these emetic drugs are as follows :— If there is much kapha, drugs which have Katurasa and Teekshna and Ushna qualities are to be selected; if there is much pitta (in Aamaasaya), drugs which possess sweet taste and Hima quality are to be selected (Yasthimadhu, Honey, etc.); if there is much Vaayu associated with kapha, drugs which are sweet and salty (Rock salt or common salt), and sour and hot things are to be selected (Saarangadhara— "*Kapham katuka teekshnoshnaih, pittam swaadu himaih jayet; suswaadu lavanaamloshnaih samsrushtam vaayunaa kapham*"). Saarangadhara gives the following recipes—In Kapham, Pippalee, Madanaphala and Saindhavalavana are to be taken with hot water. In Pitta, the cool decoction of Patola, Vaasaa and Nimba are to be taken. In Vaata associated with Kapha (in Uras or Aamaasaya), Madanaphala is to be taken with milk. In Indigestion, Saindhavalavana is to be taken with hot water to produce vomiting.

Drugs Advocated for Vamana Karma.

The following drugs either alone or in suitable combinations are advocated for Vamana.

Madana, Yashtimadhu, Bitter-Gourd (Tikta Alaabu), Neem, Kaakanaasa, Indravaaruni, Bitter Cucumber, Kutaja (Koorchi), Moorva, Devadaali, Vidanga, Jalavetasa, Chitraka; Mooshika-parnee, Kosavatee, Karanja, Pippali, Salt, Vacha, Ela, mustard, Kritavedhana, Kaanchanaara, Aswaghandha, Bandhujeeva, Sata-pushpa and such other drugs. Their powder or Kalka (fresh grounded paste or decoction) may be taken. Madanaphala is advocated as the best of all.

Emetic to be Unpleasant and Purgative to be Pleasant.

The dose of the emetic is to be carefully selected on the basis of the strength of the patient, of the Dosha and of the Sattwa (mental conditions) of the patient, etc. Charaka says that in every emetic, the addition of honey or rock salt is necessary. The drug added in the dose of the emetic should not be saatmya, lest it

should be digested. The rule is that medicines used as emetic should be unpalatable, frightening, foulsmelling and ugly to sight, whereas the purgatives should be sweet, palatable and pleasant.

“Asaatmya beebhatsa durgandha durdarsanaani
Cha vamanani vidadhyaat, ato vipareetaani
Virechanaani.”

—Susruta-Chikitsa. Ch. 33. 2, 7.

The Emetic (Vamana) is the eradicator of the Doshaas in the upper region of the body, whereas the Purgative is the eradicator of the Doshaas in the lower regions of the body. The purgative is digested and moves downwards, whereas the emetic should be undigested and should move upwards. It is important to bear these points in mind when devising a prescription for Vamanakarma or Virechanakarma calculated to expel the doshaas.

If the patient is a delicate one or weak or very much afraid of the emetic or a boy or an old man, he should be given Yavaagu (Conjee) or milk or buttermilk or curds to the full and then the emetic dose is to be given to vomit it out along with the dosha. After taking the dose of the emetic, the patient has to rest for a Muhoorta to have his body fomented with heated hands all the while. If sweat appears, it should be known that the dosha is being liquified, if horripilation occurs, it should be known that the dosha has begun to move from its location; if distension of the abdomen appears, it should be known that the dosha has come to Kukshi (part of the Koshta); when Nausea (Hrillaasa) and watering of the mouth (Aasyasravanam) occurs, it should be known that the dosha is coming out. The patient should sit on a cushioned chair about eighteen inches in height, so as to enable him to stoop forward and vomit easily and to rest in the intervals. He should be held by attendants; his forehead and sides (of chest) should be supported by the attendants. These parts should be also massaged by them. If the patient does not feel sufficiently nauseous, he should tickle his fauces with his fingers or with the stem of Eranda nalaa (the stalk of the Castor Oil Plant), or with the stalk of the Water Lily flower, so that he may easily vomit out the contents.

The patient is thus induced to vomit when he gets the nauseous sensation; he should not be made to vomit without sufficient nausea. In this way, he may vomit four to six times, or eight times. Four vomits are considered to be due to an inferior action of the medicine. Six vomits are considered to be due to medium action and eight vomits to be due to drastic action of the medicine.

There are four ways of knowing that the dose of the emetic has produced its results in a satisfactory manner. The four ways of such knowledge are named by the commentators :- 1. Laingikee, 2. Maanikee, 3. Vaigikee and lastly 4. Aantikee.

1. *Laingikee* : The patient should experience a feeling of relief as he vomits out the Dosha, and he should feel lightness of heart region, sides, head, senses and upper Koshta and a feeling of relief therein (*Hrut paarswa moordhendriya maarga suddhau, Tatha laghutwepicha lakshyamaane.* -Charaka-Siddhi - 1. 14). This sort of feeling denotes the Laingikee way of knowing that the Emetic has acted in the desirable manner.
2. *Maanikee* : The total volume of the vomitted matter is measured and one Prastha (2 seers = about 48 fluid ozs.) of the matter is considered a Heena Suddhi; two Prasthaas of the vomited matter is considered as Madhyama Suddhi and four Prasthaas are considered as Uttama Suddhi. This consideration of Suddhi is according to Manna or measurement and hence, it is called Maanikee.
3. *Vaigikee* : The number of Vegaas or Urges to vomit is another consideration. It is noted already that four Vegaas or urges or vomits are considered as Madhyama Suddhi and eight Vegaas are considered as Uttam Suddhi (also called Pradhaana Suddhi). As this consideration of Suddhi (purification) rests on the number of Vegaas of the patient, it is called Vaigikee.
4. *Aantikee* : The patient, who has taken an emetic should first vomit the medicine and gradually Kapha in the succeeding

vomits and Pitta in the last vomit. Thus Pitta is the last to be vomitted, and hence it is said '*Pittaantam isstam vamanam*' - Charaka, i. e., Pitta should be the last to be vomitted. The appearance of pitta (Bile) in the concluding (Anta) vomit is desired and this kind of Suddhi (Purification) is called Aantikee (pertaining to Anta or conclusion). Or Vaaya is also, however, said to be the last or concluding Doshaa

(“*Kramaat kapha pittamadha anilascha yesyeti samyak vamitah sa ishtah.*”)

But the discharge of Vaayu is only inferred by the empty urges (to vomit) in the end and it is not attended with any matter. If there is matter, however little, it should be Pitta. Hence Pitta is practically the last Dosha to appear concretely. This consideration of Suddhi is called Aantikee. The Commentators (Chakrapanni and Dalhana, etc.) say that there may be fallacies in concluding that the Doshaas have been expelled by any one or two of these considerations and hence all these points should be considered in deciding whether the patient had a thorough Suddhi (purification) or not.

How does the Emetic Act ?

How the emetic acts in expelling the Dosha is explained by Charaka thus :- The Emetic which is endowed with Ushna, Teekshna, Sookshma, Vyavaayi and Vikaasi qualities, reaches the Hridaya by its own penetrative power (Swa Veeryena) and from there, it gets into the Dhamanees (Channels) and entering the big and minute Srotasses (Sthoola Anu Srotebhyah) throughout the body (Kevalam Sarceragatam), liquifies the Doshaas lodged there, by its Agneya' (Biochemical) qualities and breaks (Vicchindati) the Dosha by its Teekshna quality. The Dosha thus liberated, enters the circulation broken, and when the patient's body had been sufficiently lubricated by the previous Snehpaana, the Dosha cannot stick up anywhere, just as honey cannot stick up in a vessel, which is anointed with oil, and therefore the Dosha naturally comes to the Koshta.

From the Alimentary Canal the Dosha is finally vomitted out by the action of Udaana Vaaya. The emetic which starts its action in the alimentary canal enters the circulation and brings the Doshaas along with it, into the alimentary canal for elimination from there.

A similar process takes place when a purgative is given but there the dosha is pushed downwards instead of upwards by reason of the specific purgative property. (Adhobhaaga Prabhaavaat Cha). However, strong emotions such as anger, fear, etc., may alter the whole course of treatment either by assisting or by impeding the evacuation of the Doshaas. This has been particularly stressed and the physician should see that no such emotions should hinder the course of treatment. If any such mental affliction should cause trouble to the patient, it should first be set right before proceeding with the treatment.

Excessive Use of the Emetic.

If the dose of the emetic is excessive, there would be Atiyoga, i. e., excessive action of the emetic which is not desirable. Such a dose produces excessive evacuation of Pitta, unconsciousness and pain in the heart region and throat. Moreover, thirst, stupor (Moha), vitiation of Vaayu, sleepiness, excessive weakness also may be caused. Streaks of blood, foam, etc., may be seen in the vomitted matter. There may be tympanitis, haemorrhage, etc., as a result of an excessive dose of an emetic.

Ayoga - Insufficient Dose of Emetic.

There, in the Ayoga or improper evacuation of the Dosha the emetic, the symptoms caused by such an improper dose are dribbling of saliva, sensation as if there is no purification in the heart region, and itching (susruta), skin eruptions (Kotha and Sphotaka) and heaviness of the body. The treatment of these symptoms will be dealt with in a separate place.

Dhoomapaana After Emetic.

The patient who has had a desirable evacuation (Samyagyoga) of the dosha by the emetic (Vamanakarma) should have a

Dhoomapaana (Medicated Smoke). There are three kinds of medicated smokes, Snehana, Virechana and Samana. The proper one should be selected. If there is still some little dosha, a little Virechana or Samana Dhoomapaana should be given; if there is excessive evacuation and consequently a little increase of Vaata is suspected, a Snehanadhoomapaana is given (See Dhoomapaana Vidhi).

Diet After Emetic.

The patient should not take food immediately. He should at least fast until the afternoon. When, according to his Jatharaagni, he should be allowed to take a light meal with Kulutha Yoosha, or Mudga Yoosha or Aadhaka Yoosha or Jaangalamaamsarasa, having taken a refreshing hot water bath.

Charaka says that the patient should fast for that day or may take a thin Manda and Yavaagu of old red Saali Rice on that day in the evening if he is so allowed by the physician after judging his digestive capacity. He should repeat the same at the time of the two meals on the next day also; on the third day, he should take the Vilepi or thick Kanjee of the same rice preferably without salt or with very little salt (if it is so desired by the patient). The same is to be repeated on the third day evening and fourth day forenoon (Only two meals are to be allowed). On the evening of the fourth day, he may take same old rice well boiled with Mudga Yoosha. The same is to be repeated on the fifth day both forenoon and evening. On the sixth day, in the morning, he may take the same food with Jaangalamaamsarasa added to it (according to Saatmya). The same food is to be repeated in the evening and on the 7th day both in the morning and evening. On the 8th day onwards, the patient may gradually indulge in his usual food but with good care.

The principle to be noted here is that the consideration of Jatharaagni is most important. The Sodhana Karma (Vamana) makes the Jatharaagni weak by its nature and any food hastily given after such Sodhanakarma only weakens the Jatharaagni further which means further vitiation of the Thridoshaas eventually.

Hence, if his Jātaraagni is alright the patient may be allowed to take a light meal; otherwise Manda, Peya, etc., should be given prior to the administration of the usual food for some days till his Jātaraagni becomes proper. In this connection, Charaka says that just as the fire in the outside world is kindled by bits of dry straw, hay, dry cowdung cakes, small dry twigs, etc., and gradually develops into a large fire, when it will be able to consume big logs of wood, the Jātaraagni also gradually becomes powerful by graded and planned diet, hence it should be kindled by Peya etc., and made firm before normal indulgence in ordinary foods.

“Yadhaanuragnih trinagomayaadyaih
Sandhukshyamaano bhavati kramena
Mahaan sthirah sarvasahah tadhaiva
Suddhasya peyaadibhih antaragnih.”

—Charaka Siddhi. Ch. 1. V. II.

In the whole course of treatment, the patient should observe all the rules of good conduct (Brahmacharya etc). (Susruta Treatment 33-10).

Diseases Fit for Vamana Karma.

The Diseases of Peenasa (a nasal disease), Kushta (Leprosy or other skin diseases), Nava Jwara (Acute Fever), Raajayakshma (Consumption), Kaasa (Cough), Swaasa (Asthma-Dypsona), Galagraha (Obstruction in Throat), Galaganda (Goitre), Sleepada (Elephantiasis), Prameha, Mandaagni (Poor digestion), Viruddhaanna (presence of incompatible food in the stomach), Vishoochika (Vomiting, Diarrhoea, etc.), Alasa (a state of colic with constipation), Visha (poison), Gara (Food Poisoning), Poisonous Bites by certain snakes, Adhassonita (Downward Raktapitta) Pittakapha Prasekha (Vomiting of or dribbling of Pitta or Kapha), Durnaama (Piles), Hrillasa (Frequent nauseous sensation), Arochaka (Anorexia), Avipaaka (Dyspepsia), Apachee, Apasmaara (Epilepsy), Unmaada (Insanity), Atisaara (Diarrhoea), Sosha (Wasting or marasmus), Paanduroga (Anaemia), Mukhapaaka (Stomatitis), Dushtasthanya (vitiated Breastmilk), and various other Sleshma Diseases.

Susruta adds in addition to the above, Arbuda, Vidaarika, Medoroga, Hridroga, Visarpa, Vidradhi, Pootinaasa (Offensive odour from nose as in Rhinitis, etc.), Kanthapaaka (Inflammation of Throat), Oshta Paaka (Inflammation of lips), Karnasraava (Otorrhoea), Adhijihwa (Over growth at the base of the tongue), Upajihwika (Ranula), Galasundica (Tonsillitis or Chronic Hypertrophy of Tonsils), and diseases pertaining to Kapha Sthaanaas (Uras, Sandhi etc.).

Vamanakarma is to be done in the above diseases if Kapha is the important dosha. These diseases are usually caused by overwhelming Kapha. If Kapha is not the causative factor or if the disease is not located in Kapha Sthaana, Vamana Karma should not be done.

Diseases Unfit for Vamana Karma.

Kshata Ksheena (Persons having a wasting disease caused by excessive exercise or injuries, etc.), very fat persons, very emaciated persons, boys, very old persons, very weak persons, very exhausted persons (by overwork etc.) thirsty or hungry persons, persons having had overwork, over-lifting, excessive walking, persons who have fasted, or have had much, or have had any other physical exertion, thinking, etc., pregnant women, very delicate persons, persons with Koshta filled with Vaayu, persons who cannot vomit easily, persons who had haematemesis or upward haemorrhages, persons who vomit bile frequently, or persons in whom vaata comes upwards, persons who have taken a Nirooha or Anuvaasana Vasti, persons suffering from Hridroga (KAPHAJA HRIDROGA excepted), are not advised to take Vamanakarma. Similarly it is forbidden in Udaavarta, Mootraghaata, Plecha (Spleen Diseases), Gulma, Udara, Astheela, Swaropaghaata, Timira (Cataract), Head-ache, pain in temples, aches in ear, eye and in sides of chest. Similarly when there is evidence of Krimi (worms) or in pure Vaata diseases (Kevala Vaatarogaan), Vamana Karma is forbidden. But, if the above patients are suffering from acute indigestion, or if they are poisoned or if there is evidence of excessive Kapha, they may be administered Vamanakarma with the decoction of Yashtimadhu (or some such other mild emetic)

“Etepi ajeerna vyaadhita vaamyaa yecha
vishaaturaah
Ateeva cholbana kaphaah te cha syuh
madhukaambunaa.”

—Susruta - Chi Ch. 88, V. 17.

Jejjata comments (as quoted by Dalhana) that Madhukaambu means Honey mixed with Water, which is a desirable Emetic, even to those persons, in whom Vamanakarma is forbidden.

Things to Avoid.

In Chronic Diseases where systematic Vamanakarma is done after Sneha and Sweda, the patient, in addition to the regulation of diet mentioned already, should rest in a room free from draughts and should not indulge in overwork, fasting, excessive walking, walking in the night, sexual intercourse, sleep, heavy and incompatible foods etc. (Charaka Sutra - Ch. 15. L 16.)

Emetic in Rasaayana Treatment.

Persons who desire to take Rasaayana treatment (though they do not suffer from any disease) should first undergo Pancha Karmaas, Vamana being first in the series. They have to undergo all this process carefully for some days.

Vamana Treatment now out of Fashion.

This method of treating diseases by administering Vamana Karma has some how got into disuse. It is now out of fashion both in Aayurveda and Allopathy to prescribe emetics even in suitable cases. I am of opinion that certain chronic diseases, such as leprosy will be greatly benefitted if proper Vamana treatment is administered. In certain acute diseases in children when there is accumulation of phlegm in the chest and when the stomach is full with undigested food, suitable administration of Vamana treatment saves the child. The same is the case in certain cases of pneumonia where great relief is obtained by the patient when the patient suddenly vomits or when vomiting is induced by suitable drugs. I have found very good results by one or two doses of Arkapippali (i.e.,) Pippalee Powder saturated with the milk of

Calatropis Zigantica (Arka). This causes vomiting and sometimes saves the life of the patient even under extremely serious conditions. To prove the efficacy of Aayurvedic treatment by proper scientific research, the whole course of Pancha Karma treatment has to be followed in suitably selected cases.

IX

STHAMBHANA KARMA

(TREATMENT BY CONTRACTION)

Definitions.

Sthambhana Karma is the method of treatment in AAYURVEDA by which contraction of the part of the body of the constriction of the arteries or other vessels in that part of the body or in the whole body takes place. This is the opposite of Swedakarma, whose purpose is to dilate the pores and to lubricate (Snehana), to liquidate (Vishyanda), to soften (Maardava), or to moisten (Kledana) the part. Swedana encourages perspiration. It checks Sthambhanam (contraction or solidification), heaviness (Gouravam) and Cold (Seetha).

The purpose of Sthambhanam on the otherhand is to check movement (*Sthambhayati yat gatimantham, Chalam*) by contracting or congealing the openings of channels.

Things Used for Causing Sthambhanam.

The things used for causing contraction are generally (Praayah) promoting slowness in movement, Cold (Seetham), Manda, Soft Mridu), Glazy (Slakshna), Non-oily (Rooksha), subtle or quickly permeating (Sookshma), Liquid (Drava), Steady (Sthira), and Light (Laghu). Praayah means that there may be exceptions.

“Seetham, Mandam mrudu slakshnam
Rooksham sookhmam dravam sthiram
Yat dravyam laghu choddishtam
Prayaah tat sthambhanam smritam.”

—Charaka Sutra 22-17.

Soft and cold potter's earth (Kulaalakara Mrittika-Kaolin), Ice, Styptics, Haemostatics, Constipaters, Anti-Diuretics (like Opium), Anti-Diaphoretics (Like Atropine), Vaso-constrictors (like Adrenaline) may all be included under Sthambhana substances.

Substances which are sweet, bitter, and astringent are, as a rule, Sthambhana in their action.

“Swaadu tiktam kashaayam cha
Shtambhanam sarwam eva tat.”

—Charaka Sutra 22-82.

Persons Fit for Sthambhana Treatment.

Those in whom Pitta is excited, those in whom caustics have been applied, who are burnt by fire, those in whom vomiting, diarrhoea are persistent, those who are affected by poisons, or by excess of sweating process or who are similarly affected, are fit for Sthambhana Treatment.

Symptoms for Proper Sthambhana Treatment.

The symptoms by which the proper application of Sthambhana Karma is recognised are, 1. the relief by the patient of all the distressing symptoms which he has been previously suffering and 2. the acquisition of strength which is easily felt by the patient who had a proper Sthambhana Treatment. (Susruta Su. 39.)

Symptoms of Excessive Sthambhana Treatment.

There may be (1) black (Syaavata) or grey discolouration of the part, tendency to excessive venous congestion, necrosis or gangrene, (2) Stupefaction or loss of sensation or heaviness of the part (Stabhdha Gaatratwam), (3) Hurried respiration or excitement (Udvega), (4) A tendency to lock jaw (Hanusanghrahah), (5) A feeling of a catch in the region of the Heart (Hrid Nigrahah), and (6) Constipation (Varchonighrahah). These are some of the symptoms of excessive Sthambhana Karma.

General Conclusions.

In general with the other six methods of treatment, the results of improper or insufficient Sthambhana treatment are that the

Doshaas, instead of being brought to normal will get aggravated in an unequal manner and they may therefore cause aggravation of the disease.

X

VIRECHANA KARMA

(ADMINISTRATION OF PURGATIVES)

Persons Suitable for Virechana Karma.

Virechana means Purgative. This is given chiefly for the elimination of Pitta Dosha. This should be given only after proper performance of Sneha and Sweda.

A person, after finishing the Vamana Karma may also take Virechana. After Vamnakarma is finished, he should undergo Sneha and Sweda Karmaas again duly. When the person is calm in his mind, on a sunny and auspicious day, he should take the purgative. The Kalka or Bolus of Trivriih or Powder is advocated. Trivriih is best for the elimination of Pitta and also for the diminishing for Kapha. Any other purgative may be taken according to the Doshaas of the individual. If there is Vaayu, drugs containing or mixed with drugs which have Snigdha, Uhna qualities and Lavana Rasa are to be used such as medicated castor oil etc.

Drugs Used as Purgatives.

Dantee, Trivriih, Thriphala, Indravaaruni, Sunthee, Sankhini, Neelini, Tilvaka, Aaraghwadha, Kampilla, Swarnaksheeri, Milk, Cow's Urine, Castor Oil, Saptaparna, Jyotismati, etc., are some of the Virechana Dravyaas generally advocated. In all these Trivriih is considered to be the best and the milk of Snuhi (Euphorbia) is considered to be the most drastic.

Mode of Administration.

If there is suspicion of a trace of Kapha in the Aamaasaya, Vamana after Sneha and Sweda should precede Virechana.

Susruta advocates this procedure in all persons of ordinary health. The observation of the regulations of diet during the whole course is most important. If there is any Kapha, the purgative, even if it is administered properly only serves to bring the Kapha to the Grahani, thus decreasing the Jatharaagni. Hence, a Virechana should not be given without first overcoming of Kapha by Langhana and by suitable diet. The person should take light meal on the previous day and then hot water with some sour fruit juice, like Madhiphala or Orange – *Phalaamlam Ushnodhakam Cha Evam Anyapaayate*). On the next day, seeing that the last meal, has been well digested, the suitable dose of the purgative is to be given.

Three Kinds of Koshtaas (Bowels).

The State of Koshtaas or the alimentary canal is classified as three-fold – Mridu, Kroora and Madhya. In a person of Mridu Koshta, any mild laxative, like milk may produce the desirable evacuation of stools. Kroora Koshta or the habitually constipated bowels can be moved only by drastic purgatives (such persons have to undergo Sneha Vriddhi for not less than six days and Swedakarma suitably afterwards). Madhyama Koshta or medium bowels are moved by any purgative of moderate strength. Koora Koshta is the result of excessive Vaata. Mridu Koshta is the result of Pitta and Madhyama Koshta is the result of equilibrium of the Doshaas – (Susruta). (There is another classification in which Madhyama Koshta is said to have excess of Kapha).

After taking the purgative, the person should not obstruct the passage of stools or any other urges like passing of Urine (i. e.) he should arrange to have the preparatory conveniences before and he should lie down in a room free from draughts; he should not even touch cold water; he should not strain (to pass stools or to walk about etc.).

Results of Proper and Improper Virechana.

If a Virechana Karma is properly done, Faeces, Urine, Pitta (here Bile), the medicine taken, and Kapha (mucous) these should be passed out in the above order.

If the dose is insufficient or if, on any account, the purgative has not acted well, symptoms like heaviness and sensation of something existing in the heart-region and in abdomen, burning sensation, itching, retention of faecal matter and urine may result. If an excessive dose is given, i. e., when it is overdone, fainting, prolapse of anus, excessive Kapha (Mucus) pain, and such other symptoms may appear.

Diet.

If, on the day, the person has no appetite for food, let even Peya be omitted i. e., let him fast that day but if he feels weak and thirsty and if he had a fair number of motions, let him take a little hot conjee for that day.

Conditions Suitable for Virechana.

Virechana Karma is recommended to be administered in Gulma, piles, certain skin diseases like Visphotaka and poisoning, jaundice, chronic fever (Jeerna Jwara), Udara, Haleemaka, abscess (Vidrathi), cataract (Timira), certain other eye diseases like Kaacha, Abhishyanda, etc., pain in the bowels, diseases of the uterus and sexual organs of both sexes, abdominal diseases, worms, ulcers of the body, Vaatarakta, Oordhwaga Raktapitta (Haemetemesis), haemoptesis, diseases of glands, Apachee, elephantiasis, insanity, cough, asthma, heaviness and a sort of burning sensation in the chest (Hrillasa), erysipelas, diseases of the head, vitiated mothers' milk, Apasmaara, Paanduroga, sinuses, Alasaka, oedema, burns and scalds, etc.

Conditions Unsuitable for Virechana.

Virechana Karma should not be administered (or should only be judiciously administered) in Tarunajwara (first seven days or ten days after the commencement of any fever), loss of Jatharaagni (Alpaagni), Adhogata Raktapitta, Injury or fissure of the rectum, diarrhoea, persons in whom Salya was extracted, after Aastaa-pana Vasti. Where the Koshta is very Kroora, i. e., with retention of stools for a long time, where Kapha is in excess as in consumption, to old people, to very young people, to stout persons, to very thirsty people, to pregnant women, to persons

with nasal catarrh, in alcoholism, to recently delivered women, etc. But in some of these cases, a mild laxative may however be administered, if it is absolutely necessary after proper Sneha and Swedakarmaas or after the Aama Dosha is reduced.

If the purgative does not duly act, the patient should drink hot water and his abdomen should be fomented comfortably hot and be gently massaged with the palms of another person (Paanitaapa).

If the evacuation is not satisfactory, he should take only light food (or Kanjee) and take another purgative the next day.

If it is found that Sneha and Sweda Karmaas were not properly done (Adridha Sneha Koshta) he should take again the purgative after ten days having due administration of Sneha and Sweda Karmaas meanwhile.

Virechana Treatment Now Out of Fashion.

At present, both Aayurvedic and Allopathic physicians are prone to administer purgatives where they are not really required and even in cases where purgatives are needed, there is a tendency to err in the direction of administering more than what is needed in a particular case.

Aayurveda rightly prohibits the use of purgatives in the Aama or raw state as in Navajwara (acute fever) where the material which has to be eliminated is not ripe for elimination. It is only when the Niraama State is reached, that is, when urine, stools or other material is ripe for elimination that the diuretics or purgatives are of any benefit at all. In the acute stage of inflammation, these attempts only tend to aggravate and irritate the disease. This point is greatly emphasised in Aayurvedic treatment.

XI

VAMANA VIRECHANA VYAAPATTI

Disorders Resulting from Improper Administration of Vamana and Virechana Karmaas.

Disorders resulting from improper administration of Vamanaa and Virechana should be carefully attended to. A few of

these disorders will be mentioned here with their appropriate treatment.

Ineffective Vamana Karma.

If Vamana Karma is administered to a person of Mridu Koshta or a hungry person or a person with a slight Kapha or is cold or is too little or is administered in Mandaagni or to a weak person, the medicine may not act as an emetic and may be passed out in the stools. By such a treatment, the doshaas are only agitated in their place (in the Kaphasthaana) but are not expelled. This may give rise to ill-health. In such a case, Sneha should be given again and Vamana should be administered after that in a proper manner.

Ineffective Virechana Karma.

Similarly, if a Virechana is given to a person who has abundant Kapha or to one suffering from Mandaagni, the medicine may be vomitted. Here also, Sneha Karma should be administered again and then Virechana should be given. If this also fails, a third virechana should not be used. This is the general rule. Suitable treatment for checking Vaayu is imperative here. Hence, Abhyanga with oil mixed with salt, Prastara and Sankara Sweda and later Niroohavasti may be administered. The person should then take Snighda food like Jaangallamaamsarasa, etc., and then an Anuvaasana Vasti (oily enema to be explained in the following pages) using an oil medicated with Madana, Pippalee and Devadaaru. The person should receive Snehana Treatment with Vaatahara Snehaas. He should then have the Virechana Karma.

If there is much Doshaa in the body and the person has Rukshata with very little digestive capacity (Mandaagnih) or if the dose is insufficient the Virechana medicine taken may not act and may produce tympanitis, backache, headache, dyspnoca, retention of urine and faeces, etc., which may seriously afflict the patient. In such a case, abhyanga, Sweda, Phalavarti (a medicinal rectal suppository), should be employed along with Niroohavasti and later an Anuvaasanavasti. In such tympanitis,

treatment for Udaavarta should be done. Light Kanjee prepared with Panchamoola, Yavakshaara, Vacha and Saindhavalavana is especially useful as food when the patient is hungry.

Obstruction to Vomiting and Purging.

If a person takes an emetic (Vamana) and obstructs its course on account of some inconvenience, he may develop symptoms such as clamping sensation in the heart, hiccough, pain in the sides, cough, salivation, etc.

Another dose of the emetic should be administered immediately. Similarly, if the Virechana (Purgative) is taken and if the urge for stools is obstructed, symptoms like colic, trembling, etc., may result. Vaatahara treatment like Sneha, etc., should then be employed.

Symptoms of Excessive Virechana & Vamana.

In symptoms caused by excessive dose of Virechana, Mathura Drugs (Sweet drugs like yasthimadhu), should be employed to produce an emetic effect. Similarly, in symptoms caused by excessive dose of Vamana a light Virechana is to be employed. Cold Parisheka and cold Avagaaha (immersing in a cold water tubs, etc.,) may also be employed.

In excessive vomiting caused by an emetic, sprinkling cold water, giving fruit juices with Laja Churnam; ghee, honey and sugar are recommended. If, in excessive vomiting, the tongue is rigid and stiff, gargling with sour and salt decoctions or juices or palatable Yooshaas or Maamsarasaas may be employed. The tongue may be smeared with the paste of Tila and gently pushed into the mouth. Some other persons should eat sour fruits in the patient's presence. This causes salivation in the patient and may cause the tongue to recede into its proper position. If Vaata diseases occur by excessive vomiting and cause symptoms like loss of speech (Vaaggraha etc.,) Kanjee mixed with ghee and Maamsarasa etc., may be given. In Aayurveda, Maamsarasa or meat juice is advocated as a nourishing food. Wherever this is mentioned, it should be given to those who habitually take Maamsa (Maamsa Saatmyah) and never to those who are vegetarians by

birth or by habit. Suitable Yusha or milk may be given to the vegetarians. This Saatmyata should always be born in mind; otherwise unnecessary and untoward symptom may result.

In haemorrhage from the bowels, resulting from excessive dose of Virechana, the loss of blood is called Jeevaadaanam because it may take away the life. Treatment for Raktapitta and Atisaara (Diarrhoea) should be given.

Similarly, when the medicine is digested without producing the desired effect, he should take light food and repeat the purgative after proper Sneha and Sweda Karmaas. In Atiyoga, soothing measures and sympathetic treatment is necessary. These disorders are called "VYAAPAT" and it should be the endeavour of the physician to prevent such things by proper investigation and estimation of the Doshaas of the particular person to whom the Vamana and Virechana are to be administered. Many prescriptions of purgatives which suit persons of different diseases are given in Aayurvedic Text-Books and it is necessary to adhere to them as far as possible.

XII

VASTI KARMA

(TREATMENT BY ENEMATA)

Vasti Karma means Injection or Enema. Injections of medicated liquids into the bladder through the Urethra, and vaginal douches (Uttara Vasti) are also included in this term Vasti. In ancient times, these rectal injections were given by means of a nozzle (usually metallic) properly tied to the urinary bladder of an animal, prepared suitably for the purpose and filled with medicated liquids, such as decoctions or oils. Hence the term Vasti - literally bladder, means the administration of enema. Urinary bladders of animals like goat, pig, etc., were used for the purpose. In ancient times bags made of skin and fitted with metallic nozzles were used but now rectal syringes or enema cans fitted with rubber tubes and vaginal and rectal nozzles may be used.

Importance of Vasti Karma.

There was a time in India when Vasti Karma - the administration of enemata - was very popular. It was so popular at that time that some physicians considered that it was sufficient to treat all diseases by enemata alone, giving up all the other methods of treatment. Charaka says, that it may be agreed that the treatment by enemata constitute one half the whole treatment by all methods.

“Tasmaat chikitsaardhamiti bruvanti
Sarwaam chikitsaam api vastim eke.”

—Charaka Siddhi 1. 39.

A whole book is devoted by Charaka for the treatment of all kinds of diseases by enemata. A number of recipes are given for various conditions and different varieties of Vasti Karma are described in detail.

It is surprising how this valuable method of treatment went into disuse until it was re-discovered after the introduction of the Allopathic system into India from the West.

It is not probably necessary to reintroduce the instruments that were originally used by Charaka and Susruta. The modern apparatus, the well-known enema can with the long rubber tube and the different kinds of nozzles suitable for male and female use, may be utilized by the Aayurvedic physician without the least hesitation. The glass and rubber enema syringes may also be used in the case of children and also for their easy portability.

The descriptions of the ancient instruments are also given below, on account of their historical interest. The importance of the treatment of many diseases by Vasti Karma arises from the fact that Vaata is accepted as the leader of Pitta and Kapha. Once Vaata is vitiated, the vitiation of Pitta and Kapha follows; and conversely if Vaata is subdued and brought under proper control, the other faults also may be checked easily.

According to Aayurveda, the original seat of Vaayu is the Pakwaasaya. It was therefore considered necessary that if vitiation

of Vaayu is checked at its source in the Pakwaasaya, the other Vaayus in the body may also be brought under control. It is for this reason that great importance is given to the treatment by different kinds of Vastis (Enemata). Further, it is said, that Vaata diseases are being numbered diseases as eighty, Pitta diseases as forty and kapha diseases as twenty in proportion, the treatment by Vasti Karma, which mainly deals with Vaata diseases is more important than any other treatment.

Anyhow the study of the treatment of various diseases by Vasti Karma deserves careful research at the hands of modern scientific workers, both according to Aayurveda and Allopathy.

Varieties of Vasti Karmaas.

(1) Anuvaasana Vasti or the enema with medicated ghee or oil, (2) Niroohavasti or enema of decoctions of drugs or milk or meat-juice, and (3) Uttara Vasti or injection or douches of medicated oils or ghee or of decoctions into the urethra or vagina. These are the three main varieties of Vastis. Phalavarti means the introduction of a suppository in to the rectum.

In many cases, Nirroha Vasti and Anuvaasana Vasti are alternately administered to a person to complete a course of Vasti treatment.

Anuvaasana Vasti.

Anuvaasana Vasti is otherwise called Sneha Vasti. It consists of oils or ghee or animal fats, medicated. Anuvaasana Vasti is also to be given after proper administration of Sneha and Sweda. Since Anuvaasana Vasti itself is a form of Sneha Karma, it may even be administered primarily. But in the order of the Panchakarmaas, which are administered in a normal person for the purpose of Rasayana treatment, Vamana comes first, Virechana second Nirooha as third and Anuvaasana comes as the fourth. After Virechana is given, there is usually a gap of one week, which should elapse in order to strengthen the Jatharaagni before Anuvaasana is administered. After Anuvaasana, Niroohavasti is to be again administered. But in certain cases, i.e., in leprosy, obesity, etc., Anuvaasana Vasti need not be administered. This will be considered in its proper place.

Anuvaasana Vasti is indicated especially in persons of voracious appetite (Atyagni), in persons who are very rooksha or in those afflicted by pure vaata i.e., unmixed with Pitta or Kapha.

Both Anuvaasana and Niroohavastis are to be administered in diseases (or symptoms like Gulma, retention of urine and stools (Aanaaha), Khuda (a kind of vaata disease), colic, Jeernajwara (any recurrent fever that persists after 12 days), nasal catarrh (Pratisyaaya), difficulty in the discharge of semen (Sukragraha), retention of flatus, obstinate constipation, growth of tumours in the body, calculus (renal), amenorrhoea and obstinate Vaata diseases. Niroohavasti is further recommended (but not Anuvaasana) in diseases of spleen, intestinal worms, Hridroga etc.

Anuvaasana Vasti is not generally recommended in leprosy for it is mainly a disease of Kapha and Sneha may aggravate it. Prameha, obesity, udararoga, Paanduroga (anaemia with predominant pitta or kapha dosha), Jaundice, Peenasa (long-standing nasal catarrh with loss of smell etc.), elephantiasis, excessive emaciation, etc. Further, it should not be administered in poisoning (acute or chronic), when the abdomen is very heavy as in kapha diseases in general. Anuvaasana Vasti is to be taken after having light meal and not before meals. On the contrary, Niroohavasti or enemata of decoctions is generally given on an empty stomach.

The dose for Anuvaasana Vasti is generally as follows:—Maximum dose is six palaas and four palaas is the minimum used for the purpose. The ghee or oil may be mixed with Saindhavalavanam and Sataahwa powder each to be powdered and mixed in 6, 4 and 2 Mashaas (1/64th of a pala) respectively for the above doses. Ghee or medicated oil with the following drugs may also be administered as Anuvaasana Vasti:—Dasamoola (10 drugs), root of castor plant, Punarnava, Yava (barley), horse-gram (Kulutha), Badara fruit, Gudoochi, Madana fruits, Palaasa and rocksalt. The medicated oil or the pure oil mixed with rocksalt, is to be rectally, injected slowly and it is to be retained in the intestines by the patient for sometime. The patient may sleep after this operation. Let there be no effort on his part to expel the

fluid for some hours. Generally nine hours is the time for the retention of the Sneha. If it is absorbed in the intestines and there is no urge, let another 24 hours pass. On the day of administration of Anuvaasana Vasti, let the patient take Abhyanga, massage and bath. After giving the rectal injection, the patient's legs are to be massaged for some time. At that time, while he lies on the cot, the end of the cot (portion containing his legs) is to be raised so that his head is lowered in that lying position, the position retained for a while and then the cot is to be brought to the normal position; this process is to be repeated three times. This is to be done, so that the medicine may get into the interior of the large intestines. The whole of the large intestine is thus to be lubricated with the medicated oil (ghee) and preferably some of the oil may be absorbed. After twenty-four hours, if it does not come out mixed with faeces, a Niroohavasti (decoction of the above drugs mixed with much salt) has to be administered. If, on the other hand, the oil comes out mixed with the faeces or with some gas, after some hours, without producing symptoms like heaviness of the abdomen, loss of appetite, langour or dullness (Jaadyam), sensation of heaviness in the body or such untoward symptoms, it should be considered that the Anuvaasanavasti has been properly executed and that it would produce the desired effects. The patient, in such a case, may take his meal (light, warm, Snigdha and easily digestible) at the usual meals time. If heaviness, loss of appetite, dullness, occur (when Anuvaasana has been given in the afternoon), he should fast for that night and take the decoction of Sunthee (Ginger) and Dhaanyaka (Coriander seeds) next morning. If there is no keen appetite, let him stop the next meal, and thus let him fast or he may take a very light meal.

The Anuvaasana Vasti is to be repeated on the third day after the initial Vasti (i.e., a day should intervene between the two Anuvaasana Vastes). But if the person is healthy and is in the habit of taking regular physical exercise (VYAAYAAMA NITYAM) or if the person is very Rooksha, he can take this Anuvassana Vasti everyday for sometime. In such a case, the dose may be lessened. If a dose of Sneha Vasti is taken daily it is called Matraa Vasti.

Three or four proper Anuvaasana Vastees may generally be sufficient to impart Snigdha Guna to the system and then the person should use Nirooha Vasti to check vaata or other Doshas mixed with Vaata. If the person is found to possess Snigdha quality (See symptoms of well executed Snehakarma) then Niroohavasti may be given after one or two Anuvaasana Vastees and thereafter the Anuvaasanavastis and Niroohavastis are to be alternatively given about ten to eighteen times each or even more. If the Anuvaasana Vasti is immediately or early ejected out from the intestines, another may be given soon after. Saarangadhara says, that the first Anuvaasana Vasti (properly executed) may set right the Vaata of bladder and groins; the second is required to impart Snigdha quality to head (thus it may cure diseases, such as headache caused by vaata vitiated and extended to the head). The third Sneha Vasti imparts, strength to the body; fourth Raktadhaatu and so forth. Thus diseases due to vaata which have their seat in the various dhaatus may be cured by a sufficient number of Sneha and Nirooha Vastis with the necessary diet and regulated life. Various oils and medicated ghees have been advocated for various diseases like hemiplegia, obstinate Vaata diseases, loss of semen, amenorrheea, etc. Certain prescriptions are given for healthy persons to increase their vitality, strength, etc. In pure vaata, nine to eleven Sneha Vastees are advocated, when these derangements are seated in the Pakvaasaya. It is to be remembered that a light Swedakarma to the abdomen and back and hips is usually given before Sneha Vasti.

Nirooha Vasti.

This is also called Aasthaapana Vasti. While Anuvaasana Vasti imparts Snigdha quality and is Brimhana (tissue building), Niroohavasti is Sodhana particularly of Vaatadosha. So, before proper administration of Sneha Vasti or where there is not sufficient Snigdha quality, this Nirooha vasti should not be given, except in leprosy, obesity, elephantiasis, etc., where the Snigdha quality is over-abundant. Therefore these two operations are usually given alternately in vaata diseases. This rule is every-

where applicable, that, without proper imparting of Sneha and Sweda, no Sodhana (either Vamana or Vasti) should be given. If Niroohavasti is alone administered without Snehavasti then even vaata diseases may result.

In obstinate Vaata diseases a Niroohavasti may have to be given after every three or four Sneha Vastees consecutively performed. A knowledge whether further imparting of Snigdha quality is necessary or not is important. As regards the proportions of the quality of liquid required for Sneha and Nirooha Vasti, the rule is that the quantity of fluid required for Niroohavasti shall be 4 times of that required for Sneha Vasti (4 or 5 Pints).

The drugs, Dasamoola, etc., advocated for Anuvaasanavasti may be used for Niroohavasti also as decoctions. Vaagbhata recommends the following forms of Niroohavasti. The drugs (Dasamoola etc.) 20 palaas have to be taken along with eight Madana fruits and the whole is to be boiled with 16 times of water, and reduced to $\frac{1}{4}$ the quantity (Taila or any other suitable Sneha) is to be added in Vaata diseases. In a normal person or in persons with Pitta dosha, Sneha is to be added at $\frac{1}{8}$ th part of the decoction. Usually ghee is to be added. In Kapha Dosha, Sneha is to be added at $\frac{1}{3}$ th part of the decoction, one pala of Jaggery, a little rocksalt and honey should also be added to the mixture, which should be heated by placing the vessel in a vapour bath and then it should be used as an enema (rectal injection) when it is lukewarm.

It is to be noted that Niroohavasti is always to be administered before food only and never after food.

Usually in the beginning, the rocksalt is mixed after grinding the salt in a mortar with honey (Honey 3 palams and rocksalt 1.2 Karsha = $\frac{1}{4}$ the part of honey). To this mixture, the Sneha is added and homogenously mixed. The Kalka (fine powder) of the drugs used for Nirooha Vasti is then added and when the whole is thoroughly mixed up the decoction of the drugs is gradually added and mixed. The mixture is put in a vapour bath and used when it is comfortably warm.

After Niroohavasti is given, the patient should answer his calls of nature if he gets the urge. If a Niroohavasti is not expelled even after 48 minutes (Muhoorta), then it should be considered that there is something wrong, and a Vasti which is very Teekshna with sour substances and salts or with Gomootra should be administered. Or a Phalavarti (a suppository made with drugs, oils and a bit of cloth etc.) should be placed in the rectum. A Phalavarti being Teekshna, may induce a movement of the bowels.

The persons fit for Niroohavasti have already been described. It should always be borne in mind that Niroohavasti is to be administered to a Snigdha person or to one in whom, Snehakarma had been done to the adequate extent. A sufficient number of Anuvaasanavastis were to be previously given but in certain diseases, such as leprosy and obesity, Snigdha treatment is not necessary. This state should always be understood and kept in mind, i. e., whether the person is Rooksha (Dry) and Snigdha. But, a person should never be Asnigdha or Atisnigdha. Such an Atisnigdha person (by nature or by Snehakarma overdone) may have to undergo a course of Rookshna treatment as Vyaayaamam, Sunbath, hot and air baths, etc., before Niroohavasti can be administered. Niroohavasti is not recommended to an Atisnigdha person, to a person with a wound or ulcer in chest (Kshatoraska) i. e., a consumptive of a person with Atisaara (Diarrhoea), nor to a person with vomiting, cough, ashtma, dyspnoea, Prameha, piles, hiccough, tympanitis (certain stages in weakness, etc.) or to a person with very little quantity of faecal matter or with inflammation of the rectum, or with Baddhagudodara (intestinal obstruction or intussusception of bowels where laparotomy may be necessary), or ascitis, ulcers in intestines, or leprosy or Prameha and during the first seven months of pregnancy and to a person with cholera, indigestion and to a person who has taken a Snehā or purgative or emetic, nasya, etc., that very day or to a person troubled with fatigue, fear, syncope, and such other diseases.

When the Niroohavasti does not come out even after a Muhurtha and even after the introduction of phalavarti another Niroohavasti of Teekshna character such as Kshara, water (water

mixed with Kshara or ashes i.e., alkaline solution of certain drugs, Ksharodaka, it is called) or pure cow's urine may have to be administered.

In the discharge after the Vastikarma, faecal matter should appear first, next pitta or bile, and then kapha or mucus. If a person experiences a feeling of relief, and if there is lightness, and no loss of strength the Niroohavasti should be considered to have been effectively applied. Three or four Niroohavastees may be necessary for an individual. (These Nirooha vastis may be alternated, by Snehavastees in suitable cases). In diseases of vaata, sometimes, Niroohavastees with meat juice (mixed with honey and salt), and Snehā are useful. In diseases of Pitta (mixed with Vaata or located in Vaatasthaana) a Vasti of Milk is useful; similarly, in diseases of Kapha, a vasti of Yoosha (decoction of pulses little greengram, horsegram, etc.) mixed with honey is useful.

Niroohavasti is further divided generally in the following categories :-

(1) Utkelsana Vasti or a Vasti that moves the Vaata and the other Doshaas from its base (Pakvaasaya) into the hollow of Pakvaasaya. This from of Vasti only shatters the settled base of the Vaayu but does not expel it. Castor Seeds, Yashtimadhu, Pippalee, rock-salt, Vacha, Hapusha - these generally are used for the Utkelsana Vasti.

(2) The second is the Doshahara Vasti. This is the proper Sodhana Vasti or the one which indicates the Dosha. Sataahwaa, Yashtimadhu, Bilwa, Kutajaseeds, and cow's urine mixed with these drugs is the Doshahara Vasti that is generally used.

(3) The third is the Samana Vasti or the Vasti which ameliorates the remaining dosha. Priyangu, Yashtimadhu, Musta, Rasaanjanam, milk - these substances are generally used for Samanavasti.

Generally in an ordinary person or one with moderate Pitta-dosha these three Niroohavastis - Utkelsana, Doshahara, and Samana Vastees are used consecutively. These are other kinds of

Nirooha Vasti which may have to be used in special cases. They are:-

(1) Lekhana or the one with the Dosha in the Pakvaasaya.- rather it is a mild sort of Niroohavasti. Thriphala, Gomutra, honey, certain Kshaaraas (prepared from ashes of certain drugs) and the ingredients of Ooshakaadigana, Ooshaka, Thutha (Copper Sulphate), asafoetida, Kaaseesa (Iron Sulphate), rocksalt and Silaajit-these substances are generally used for Lekhana Vasti.

(2) Brimhana Vasti or nutritive Vasti - it is prepared by sweet drugs like Jeevaka, Rishabhaka, Vidaari, Sataavari, Jeevanti, Draakshaa, ghee, meatjuice etc.

(3) Pichchila Vasti - This is used as an emollient in irritation of the colon and other parts as in colitis, mysentery, haemorrhoids etc. Dhavayaasa, Sunthi, milk, honey and such other drugs are used for this purpose. In profuse haemorrhage from piles, etc., the blood of animals, such as goats, rabbits, is also added to other drugs of the Pichchila Vasti.

Charaka recommends such a Vasti (he calls it Pichaa Vasti) in bleeding piles, colitis, prolapse of the rectum etc.)

After the fluid of Niroohavasti is expelled along with faeces, the persons should feel comfortable. A hot water bath and then a light meal (with meat juice of Jaangalamaamsa etc.,) generally may be given. Nirooha Vasti does not weaken the Jatharaagni like the Sodhana treatments such as Vamana, Virechana etc.

In the beginning, a Sneha Vasti and then a course of twelve Aasthaapana Vastees alternated with Snehasvatis this amounting to twenty-four and then five Sneha Vastis; this is the whole course of thirty Vastis - this course is called Kaala Vasti.

Some other courses such as Yoga Vasti, etc., are mentioned in text-books.

A daily small dose of Sneha Vasti is termed Maatraa Vasti and this may be taken for a long time. This Matraa may be taken by children and old people and those persons who walk long distances, who carry heavy weights or take physical exercises regularly

and who carry on heavy intellectual work (here ghee is advocated). Persons with fracture, chronic Vaata diseases and persons who desire a happy life of ease in general, may take this Maatraa Vasti.

Disorders resulting from improper application of Vasti Karma are termed as Vasti Vyaapat. They should be suitably treated.

Uttara Vasti.

It is here incidentally mentioned as it is also another form of Vasti, though it is another medical operation in Aayurvedaa.

But it is not one of the Pancha Karmaas. So, its usefulness is limited. Uttara Vasti usually means an injection of medicated oils or ghee or lotions into the urethra or vaginal cavity. The nozzle for the male urethra should be twelve Angulaas (i.e., twelve finger breadths or one span of the hand of the patient i.e., 9 inches for an adult). A rubber tube or Catheter may now be used. These nozzles were made in flexible metal and a Vasti or bag containing the medicated fluid would be attached to it and compressed. Since the Vasti is given in an orifice (Marga) which is above the rectum (Uttarena Margena Deeyathe Ithi Uttara Vastih) it is called Uttara Vasti. A glass syringe to which a proper rubber tube is fitted may be used now. This nozzle (Nethra) or tube has to be sterilised and smeared with ghee (Ghrtaabhyaktam). The person should have taken already two or three Niroohavastis (and two Sneha Vasties alternating them and in the beginning). He should take a bath in the morning and then take a diet consisting of milk or meat juice (or Yavagoo or Kanjee with milk and ghee) and when he has passed his stools, urine, etc., he should sit on a small stool 1½' high or lie on his back and after a sound is passed in the urethra (Salaakaam Pranayet) to test the free passage of the orifice, the nozzle of the tube (smeared with ghee) should be then passed. Only seven Angulaas (about five inches) of the tube is to be passed inside into the urethra and the tube withdrawn gently. (Sanaih Netram cha Nirharet). The fluid may be allowed to remain for a while but retention for too long a time is not advised.

Small pills previously prepared which are dry and of mustard seed size or of blackgram seed size and made of Aaragwadha leaves

with Nrigundee juice, rocksalt and cow's urine are to be introduced in the urethral orifice and kept there in order that the Sneha given by Uttara Vasti may not come out. The Sneha for Uttara Vasti is half a pala (4 tolaas) for persons below the age of 25, and one pala for those above that age. Susruta advises the Uttara Vasti to be given in the morning after taking the Yavagoo with milk and ghee. The person may take food after the Vasti is performed and after the fluid comes out. Four Uttara Vastis may be given on one day. In this way, the Uttara Vasti may be given for three days consecutively and for three days after that, it should be discontinued and on the next three days or so it may be resumed again if the condition of the disease requires it. Pure ghee or oil, or ghee and oil medicated may be used for Uttara Vasti. If the Urethra is irrigated owing to frequent administration of Uttara Vasti or due to faulty technique or if there is burning sensation in the bladder or urethra, a decoction of Yshtimadhu with honey and sugar may be used as Uttara Vasti or pure milk mixed with honey and sugar or a decoction of Udumbara, Aswatha or Nyagrodha, etc., (Ksheera Vriksha or the trees that exude milk on cutting) may be used for Uttara Vasti.

Uttara Vasti is useful in diseases of semen, in all forms of Mootra Krichra (dysuria etc.), Mootra Aghaata, gravel calculus, sand in urine, Spermatorrhoea, pain in the Bladder or in groins or in penis, etc., diseases of the bladder (cystitis etc.) may be treated with Uttara Vasti, along with Sneha Vasti. A person after having Uttara Vasti should observe regulations prescribed for one taking Anuvaasana Vasti. Saarangadhara says that Uttara Vasti is not useful in Prameha (Diabetes etc.) Nochito Mehinaam Kwachit-Saarangadhara).

For women, Uttara Vasti may be given in vagina or urethra; in their case a thin tube of 2 Angulaas ($1\frac{1}{2}$ "") should be introduced if it is into the urethra. In virgins, it should be only one Angula or even less. In women, after puberty the Uttara Vasti may be performed through the vaginal orifice and the nozzle (suitable, for the purpose-like a vaginal nozzle) should be lubricated with pure ghee and should be introduced into the vagina upto four Angulaas (Chathurangulam, Apatyamaarge Yojyam).

It should be injected, when the woman is lying in a supine position with her knees raised. The Uttara Vasti should be given in Ritukaala (Twelve days from commencement of menstruation only), except in emergent cases. In Ritukaala, the passage is receptive (open-Apaavritah) and hence a medication by Uttara Vasti at that time is more effective. Uttara Vasti through vagina is recommended in all forms of diseases of the uterus, cervix, vagina etc., as well as in diseases of the bladder. In woman, three or four Sneha Vastees are given per day consecutively for three days and after a lapse of three days, it may be resumed. The dosage of Sneha in Uttara Vasti should be gradually increased (Snehamathraam Vivardhayan). Gingelly oil mediatced with the following drugs namely, Sataavari, Gokshura, Brihati, Kantakaari, Guduchee, Punarnava, Useera, Yashtimadhu, two kinds of Sariba, Lodhra, Raasna, Kusa, Kaasamoola, these should be made into a decoction and Kalka of Bala, Vaasa, Rishabhaka, Krishnajeeraka, Kutajabeeja, Trapusa, Ervaaru beeja, Sitimaaraka, Yashtimadhu, Vacha, Sattahwaa, Paashaanabheda, Punarnava, and Madanaphal with milk equal to the quantity of the decoction is made and the mixture is boiled and Taila prepared as usual. This Taila (Sataavari Taila) is useful for Utara Vasti in urinary disorders, disorders of the bladder, etc.

XIII

NASYA KARMA

This is also one of the Pancha Karmaas. This operation is useful in many cases pertaining to the head, eyes, nose, etc., i.e., in diseases pertaining to the head and neck. Nasya means introducing medicine into the nostrils. Changes are caused in nasal mucus membrane by the use of this medicine and consequently the diseases of the head and neck are ameliorated by this operation.

The Importance of Nasya Karma.

The importance of administering medical treatment through the nostrils was realised very early in India both for prophylactic and

curative purposes. Nasal douching with pure cold water early in the mornings was attributed with great efficacy in improving eyesight.

“Vigataghananiseedha praatah utthaaya nityam,
Pibati khalu naro yo ghraanarandhrena vaari
Sabhavati matipoornah chakshushaa
taarkshyatulyo,
Valipalitaviheenah sarvarogaih vimukthah.”

“Any man who regularly, waking up very early in the morning, takes (sucks up) water through the nose, becomes cool-headed and is possessed of keen eye sight comparable to that of an eagle. He will also be devoid of grey hairs and folds of the skin and will be free from any disease.”

—Yoga Ratnaakara - Dinacharya.

Introduction of a few drops of oil into the nostrils from early infancy is very common in India. Nasyakarma is also called Siro-Virechana. This means that the vitiated Doshaas which have their stay in the head (Siras) are purged out by this process. Nasyakarma is specially recommended in diseases of the head, such as inflammation of the nasal sinuses and also in diseases of the back of the throat and ears. It has been prescribed regularly and is found to be specially used in insanity. In some of these cases, the counter-irritation caused by the irritant remedies used in Nasyakarma has been found to be useful. In others, mere cleansing and elimination of the offending agents (here it acts as a soothing agency) is aimed at. While in others, the fragrance of the materials used for Nasya is believed to enter into the intricate passages in the sphenoidal and ethmoidal sinuses and acts as a disinfectant and stimulant.

“Tato naavana - gandoosha - dhooma -
Taamboola bhaagbhavet.”

—Vaagbhata Sutra—Ch. 2.

After cleaning the teeth, the nose is to be lubricated and the mouth is to be gargled freely. This is a very short sentence. If

only this sentence is properly commented upon, you will find how valuable these simple injunctions are.

“Ghanonnata prasannatwak
Skandha greevaasyavakshasah
Sugandhavadanaah snigdha
Niswanaah.....bhaveyuh
Nasyaseelinah ”

—Ashtaanga Saugraha.

He, who regularly uses Nasya, acquires the following properties:— Ghana - Thick; Unnatha - Elevated; Prasanna - Pleasing; Twak - Skin; Skandha - Shoulder heads; Greeva - Neck; Aasya - Face; Vakshastha - Chest; *i.e.*, he would develop a thick, elevated and pleasing skin, shoulder heads, neck, face and chest which means that he will have a broad and well-developed chest, a strong neck and a pleasing face”.

Sugandhavadanahah - His breath will be sweet-scented. Snigdha Niswanah - His voice will be smooth and not rough. Vimalendriyah - His senses will be clear and acute. Nirvalee-palithah - The persons become free from wrinkles and grey hairs peculiar to old age.

How are we to explain those wonderful properties attributed to putting a few drops of oil into the nostrils daily?

The chief function of the nose is to warm the air, while it passes through the labyrinths of the intricate passages into the nose and also to filter the air of certain impurities contained in the atmosphere. If the air comes into contact with the epithelium of the lungs, without undergoing drying and filtration through the nostrils, it is very likely that it may cause some injury. It is natural that the individual, particularly a child, breaths through the mouth when the nose is obstructed. The characteristic wide opening of the mouth in these children is well known. By permitting the air to get into direct touch with the lungs without the previous process of nasal filtration the lungs get into more or less direct contact with the moist and impure atmosphere. This

makes all the difference in the world. Wet fuel, placed in the hearth, or even ordinary fuel on a wet day, does not easily undergo burning and even if it burns, it gives a lot of smoke. A similar thing happens in the lungs. The blood does not undergo normal paaka (chemical or biochemical changes) and therefore to that extent the blood continues to be impure. All the good qualities mentioned above, *viz*, the plumpiness, strength, clearness and brightness of the area around the chest, neck and face and the whole skin are due to proper aeration of the blood and conversely the unhealthy condition of these parts is due to improper aeration, so to say. Oiling or lubrication of the nose regularly keeps the nasal passages clear and prevents all these troubles. Therefore, Nasya Karma is a very good method of prevention of all diseases of the nasal passage of the back of the throat, of tonsils, and of the respiratory system as a whole. The ears and eyes which are also intimately connected with the nasal passages are similarly benefitted-Vimalendriyah.

Varieties of Nasya Karma.

The medicine is usually put in the nostrils by some kind of dropper. Nasa is of three kinds:-

- (1) Virechana,
- (2) Brimhana, and
- (3) Samana.

Virechana Nasya or Seersha Virechana is useful in headache, (Abhishyanda) conjunctivities, diseases of the throat, swelling of the face, worms, enlargements of glands (Grandhi), leprosy, epilepsy and Peenasa (a nasal disease having loss of smell etc.).

Virechana Nasya is performed generally by introduction of fresh juices of drugs into the nostrils; for example - the garlic juice or the watery extract of Sunthi, Maricha, etc. mixed with salt and honey, Mustard oil, or medicated spirits are also used for the purpose. Generally Apaamaarga seeds, Pippalee, Maricha, Vidanga, Sigr seeds, Mustard seeds, Tumburu, Ajajee, Ajagandha, Peelu, Ela (Cardamoms), Herenuka, Prithweeka, Tulasee Sweta, Kutheraa, Phanijjaka, Saindhavalavana, Souvarchalavan, Haridra, Daaruha-

ridra, Jyothishmathi and Sunthee are recommended. These drugs are employed for Virechana Nasya. Generally fresh juice or juice extracted after pounding the drugs with a little water in a mortar if the drugs are dry, and oils and spirits medicated with the above drugs are employed. This sort of Nasya in liquid form is also termed Avapeeda. If the dry drugs are powdered and blown into the nose, *i.e.*, used as an insufflation, it is called Pradhamana Nasya or Dhmaata. Virechana Nasya is thus two fold; Avapeeda and Pradhamana. The latter is more irritating *i.e.*, more Teekshna. The powder is blown into the nostrils by means of a tube.

Avapeedana Nasya.

Avapeedana Nasya is a form of Virechana Nasya in which the fresh juices or the extracted Rasa from the Kalka are used. Four, six or eight drops of the solution are recommended to be put in the nostrils. The Avapeedana Nasya is useful in Throat Diseases, Sannipaata Fevers, Sleeplessness, Vishama Jwara, Mental Diseases, Worms, etc.

Pradhamana Nasya.

The Pradhamana Nasya is used when the Doshaas are very intense as it can absorb a large quantity of dosha. The drugs generally used are:- Rocksalt, Vabha, Marichna (Black Pepper), Pippali, Sunthee, Kankolam, garlic, Guggulu, Katphalam, etc. These are mixed in equal parts and powdered well along with the gall stones of a fish and kept dry. The powder may be used as Pradhamana Nasya.

Brimhana Nasya.

Brimhana Nasya may also be called the nutrient Nasya. It is useful in pain due to Vaata, Suryaavartha (a kind of headache which is aggravated with the rise of the sun and subsides with sunset), loss of voice, parching of the nose and throat, loss of speech, opening of the eyelids with difficulty and Apabaahuka (Paralysis of the arms); Brimhana Nasya may be given in the form of meat juice of Jaangala animals or of birds, flesh, blood of the animals, etc., extracts or exudations of certain trees.

Samana Nasya.

The third is Samana Nasya. It consists of milk or water (medicated or non-medicated).

Generally Nasya is to be done in the morning for Kapha Roga, in the noon for Pitta Roga and in the evening for Vaata Roga.

But, Nasya at night may be usefully resorted to in the diseases or symptoms like excessive salivation, talking in sleep, grinding of the teeth, greening in sleep, difficulty in opening the eyelids, offensive breath, tinnitus aurium (Karnanaada), hemiplegia, diseases of the head, asthma, cough and in excessive sleepiness.

Before performing the Nasya Karma, Snehakarma and Swedakarma should be administered to the head. Generally Paanittaapsweḍa *i.e.*, applications of heat with heated palms is to be done all over the head.

“Snigdha tala swedita muttamaangam.”

—Charaka Siddhi—I-50.

Before performing Nasya Karma oil should be applied to the head and massaged or warmed with the heated palm of the hand (Taks Sweditam Uttamaangam).

Then he should lie down (on a bench or so) on his back with his head bent a little backward; the vessel containing the medicine is put in hot water, so that the medicine is made a little warm. After closing one nostril the medicine is put into the other nostril and vice versa at that time. He should spit off the excessive medicine which has come into the mouth. His feet, shoulders, hands and ears should be massaged well at the time. After the first administration of Nasya, the head, cheek, neck, etc., should receive Sweda as before. After this he should have Dhoomapana (medicated smoke). On that day the patient should avoid dirt, smoke, sun, wind (excessive sneha, ghee etc.), liquor, liquid foods, full bath, journey and mental emotions like anger, etc.

If the Nasya is administered properly the patient should feel lightness of the head and he should have good sleep without any discomfort.

Unfit for Nasya Karma.

Nasya should not be performed in indigestion (ajeerna), after meals, during fasting, when any other Sodhana Karma has been performed that day, in the first stage of nasal catarrh or to a pregnant woman or after taking alcohol, liquid food, etc., or tired after a purgative or after Vasti Karma has been done, when one is angry or sad, in poisoning, when one is thirsty, when one is exhausted, when one wishes to take bath over head immediately and on a cloudy day or a rainy day.

Nasya Karma should not be performed in extreme plumpiness and to a woman in the period of puerperium (soothika) or to those afflicted with first attacks of cough, dyspnoea or in initial stages of fever (Navajwara) or to those who have just received injuries.

Nasya Karma may be performed for seven days at most consecutively. That is the maximum period. In the cases where Vaatadosha lodges itself in the head or in hiccup, in tortocollis, in loss of voice etc. Nasya Karma may be done both morning and in the evening, *i.e.*, twice a day (full bath etc., should not be taken in those days). After the Nasya Karma is finished he may take nutritious food in the usual meal time. After the Virechana Nasya (Pradhamana or Avapeeda) is done. A Sneha (ghee or oil medicated) may be put in the nostril after a while; after the Nasya is done, the patient should lie in the bed at least for about twenty minutes.

As Brimhana Nasya is nutritive and the Virechana Nasya is prone to purge the Doshaas, discrimination as to which Nasya is useful, is necessary. In some cases, both of them are necessary, *i.e.*, Virechana Nasya may have to be followed by Sneha Nasya (Brimhana Nasya). So it is necessary to know, whether the head is Snigdha or Rooksha. When the head is Rooksha, the eyes seem benumbed and stiff and the face is emaciated, the head, nose and mouth seem to be devoid of anything (feel vacant). When the head is Snigdha, itching, heaviness, salivation, anorexia and Peenasa are noticed. Rooksha Sweda is necessary in cases where Snigdha Guna is excessive and Snigdha Sweda is necessary where Rooksha Guna is excessive.

Brimhana Nasya is again twofold viz, Marsa and Pratimarsa. Marsa means a large dose of Sneha. Thrity-two drops constitute the maximum dose and sixteen drops the minimum dose. These doses may be dropped not at a stretch but two or three times. This Marsa or Sneha is useful especially for the Rooksha head.

Pratimarsa Nasya may be used by the healthy people any number of times in a day with only two drops in one dose. This may be dropped any number of times without observing any restriction. The Pratimarsa Nasya may be used by the healthy and is advised in the night, noon, after food, after vomiting, after sleep, in daytime, after a walk, fatigue, sexual intercourse, application of collyrium, after passing stools, after cleaning the teeth and after laughing. This Partimarsa Nasya especially useful in haemoptysis, in emaciated people, in children, in old men and in persons who desire comfort. Pratimarsa is also useful in times of untimely rainfall. Pratimarsa should not be used in Dushta Peenasa (Progressive Peenasa) and after the use of alcoholic liquors, when the ear is filled with pus etc., and in worms affecting the head and in great quantity of the Doshaas. Pratimarsa may be used by almost all people and it is advised to be used daily.

Generally Oil (Gingelly oil, medicated or unmedicated) is useful for Nasya for the head is a seat of Kapha; Anutaila, a recipe of Charaka and Vaagbhata is very useful, for, as it is implied in its name, it can penetrate the subtle Srotases and it may prove speedily effective in certain diseases.



CHAPTER II

I

DHOOMAPANA VIDHI

CONTENTS: Dhoomapaana Vidhi; Unfit for Dhoomapaana; Fit for Dhoomapaana; Dis-advantages of Excess; Procedure; Drugs used for Dhoomapaana; Diseases in which Dhoomapaana is useful.

Dhoomapaana or inhalation of medicated smoke is employed in certain diseases, i.e., diseases of Kapha and Vaata pertaining to head and neck. The patient may smoke through a pipe, certain substances put in a pot and burnt; or he may smoke specially prepared medicinal cigars.

Dhoomapaana is divided into Snigdha, Madhya, and Teekshna according to the drugs employed for the purpose. Snigdha Dhoomapaana is useful in Vata; Madya Dhoomapaana is useful in Vaata-kapha and Teekshana Dhoomapaana is useful in Kapha.

Snigdha Dhooma substances are Krishnagaru, Guggulu, Musta, Sthouneyam, Saileyam, Nalada, Useera, Hreebera, Vidanga, Hareenuka, Yeshtimadhuka, pulp of bilwa fruits. Plava Sallaki, (a resin), Kumkuma, Maasha, Yava, Kundurushka, (Tila seeds, Oils of fruits like Coconut, Khadira, animal fats, bone marrow, fat and ghee, and such other drugs.

The Teekshaana Dhooma substances are :—Jyotishmati, Hari-dra Dasamoola, Manohvaa, lac, Aparajita, Thriphala, Tagara etc., and with strong odourous substances. All these and the substances

mentioned for Virechana Nasya may be used for Teekshna Dhooma.

These substances should be powdered and made into a paste with water. A piece of Kusa stalk or reed (2 inches in length) is soaked in water for 24 hours and over that piece of reed, the paste (of substances intended for Dhooma) is to be thickly smeared over and the reed is left to dry itself in the shade. It should not be placed near the fire or in the sun. The dry reed becomes coated and increases in thickness. Fresh paste is smeared again and again over the reed and allowed to dry. This process is repeated five or more times, till the whole stalk grows to the thickness of one's thumb. When it is completely dry, the reed inside is now drawn off so that a dry, stiff cylinder with a hollow in the centre is left. This cylinder (dry) should be smeared with ghee or oil again and it should be fitted to one of a smoking pipes and lighted. The patient should draw the smoke through the pipe. The smoke may be inhaled even through the nose. The medicated powder is to be placed in a hallow pan and closed with another pan (Saravasamputa) and a pipe is to be inserted through a hole in the upper pan. The medicine is placed in the bottom pan and fire is applied to it. It is covered by the top dish and sealed at the joint. The smoke is inhaled through the pipe.

Unfit for Dhoomapaana.

Dhoomapaana should not be resorted to in Raktapitta (haemorrhages), when there is extreme pain, when one has taken Virechana in Pramcha, Timira (cataract), when the Vayu gets into the head in Tympanitis Rohini, when the person has taken fish, alcoholic liquor, curd, milk, honey, snesha poison, in injury to head and in anaemia previous night.

Fit for Dhoomapaana.

A person may take Dhoomapaana after sneezing, yawning, passing stools, after indulging in sexual intercourse, after surgical operations, after a laugh and after cleaning the teeth.

Vaagbhata-Soothra. A. 21. Slokam 5.

Madhyama Dhoomapaana may also be resorted to as above and also after supper and Nasya Karma. This is always Vaata Kaphahara. The Teekshna Dhoomapaana or the Virechana Dhoomapaana, as it is also termed, may be administered after sleep, nasya, after bath (in emergency cases), anjana and after the execution of Vamana Karma.

Disadvantages of Excess.

If the Dhoomapaana is administered in improper periods or is exclusively taken, untoward symptoms like Raktapitta, blindness, deafness, thirst, syncope, incoherence, fainting etc., may be produced. In such a case Gruthapaana (taking ghee with or without food) Brimhana Nasya Brimhana Lepa and a cold Parisheka etc., are helpful.

Procedure.

The Dhooma is to be taken when the person is sitting erect with his mind attentive on the act. Generally inhalation is taken through the nose as follows:—The patient is to close one nostril and with the other nostril he should draw (suck) the smoke through the pipe three times consecutively. If the Dosha is situated in the nose and in head and if it is Utklishta i.e., moved from its seat, then, the person should draw the smoke through the nostril in the beginning. But, if the Dosha is firmly lodged in the head or nose and is not moving, then he may take the smoke through the mouth. If the Dosha is situated in the throat then, he should first take the smoke through the nostril and next through the mouth.

In all cases, this inhaled smoke should be left off through the mouth and never through the nose. The smoke is to be drawn in and then left off and this process is repeated three times on an occasion.

Drugs used for Dhoomapaana.

Samana Dhoomapaana substances a Sallaki, Laksha, Prithveeka, Lotus, Lily, Barks of Nyagrodha, Udumbara, Aswatha, Plaksha, Lodhra, Sugar, Yeshti madhu, Suwarnatwak, Padmakam,

Manjishta and all fragrant substances except Kushta and Tagara. These are Samana Dravyas *i.e.*, if there is still Dosha left after the administration of Teekshna Dhooma, the Samana Dhooma is useful.

Diseases in which Dhoomapana is useful.

Diseases or symptoms like cough, asthma, Peenasa, loss of voice, offensive breath, anaemia; grey hairs, otorrhoea, discharge from the eyes, excessive salivation, itching and pain in the eyes, ears and mouth, stiffness in these parts, sleepiness and sluggishness (*Tandraa*) and hiccough—These symptoms or diseases are prevented in a person who uses proper Dhoomapaana *i.e.*, these diseases are cured and also prevented by proper administration of Dhoomapaana.

Dhooma may be applied to ulcers also; it is then called fumigation of wounds (*Vranadhooapanah*).

II

RAKTA SRAAVA—BLOOD LETTING

CONTENTS : Rakta Sraava—Blood Letting.

Rakta Sraava is the operation of blood letting. It is a part of surgical treatment. Rakta Sraava is counted by some as one of the Panchakarmas. They count the two kinds of Vasti as one item so as to make the total number of Pancha-Karmas five only. This subject will be dealt with in another place.

III

GANDOOSHA AND KAVALA GRAHA

CONTENTS : Gandoosha and Kavalagraha—Drugs used for Gandoosha. Fit for Kavalagraha.

Gandoosha means holding a mouthful of a thaila or decoction for a while after filling the mouth with it. Kavalagraha means filling the mouth partially and gargling with it.

Gandoosha is of four kinds :

Snigdha, Samana, Sodhana and Ropana. Snigdha Gandoosha is useful in Pitta, Sodhana in Vaata, Samana is useful in Kapha and Ropana is useful when there is ulceration in the mouth.

Snigdha Gandoosha is done usually with oils, etc., The oils are medicated with sweet, sour and saltish substances.

Samana Gandhoosha is done with decoctions prepared with bitter, astringent and sweet substances.

Sodhana Gandoosha is done with decoctions etc., prepared with bitter, pungent (Katu), sour (Amla) and saltish and hot substances.

Ropana Gandoosha is done with decoctions, such as are prepared with a stringent (Kashaaya Rasa) and bitter substances.

Drugs used for Gandoosha.

For Gandoosha, oils, ghee, milk, water mixed with honey, liquors, meat juice, cow's urine, Dhaanyaamlam etc., mixed or unmixed with other drugs may be employed. Their Rasas or tastes should be known by referring to the treatises on Aayurveda (See Dravyaguna) and they should be employed for treatment of various Doshas.

Sweet gingelly oil or meat juice may be employed for Gandoosha daily by all persons with advantage.

In stomatitis or ulceration of the mouth or in inflammation of any part of the mouth attended with burning sensation or in injuries of the mouth, Gandoosha with ghee or milk is useful. If the mouth is viscid and when it is also ulcerated Gandoosha with honey is also useful. It allays thirst and burning sensation. If there is Kapha in the mouth, Ksharodhaka is very useful as Gandoosha. Simple hot water used as Gandoosha bestows a sensation of lightness in the mouth.

Fit for Kavalagraha.

Kavalagraha or the gargle proper, is used not only in diseases of eyes, throat, ears, face etc., but also in anorexia, loss of smell etc. Thus, it has a wider application. The difference, as has been stated, between Gandoosha and Kavalagraha is this; In Gandoosha, the fluid fills the whole mouth and it is kept there for sometime. In Kavalagraha the mouth is filled only half with fluid. This fluid is to be gargled *i.e.*, moved about in the mouth many times and spat out. For Gandoosha a fluid is to be kept in the mouth, whereas a Kalka (soft mass of drugs) may also be kept in the mouth for Kavalagraha.

IV

MINOR OPERATIONS

(MOORDHA THAILA, ASCHOTANA, ANJANA, TARPANA,
PUTAPAANKA, SEKA, PINDIKA, AND BIDALAKA)

CONTENTS: Minor operations; Aschotana; Anjana; Tarpana; Putapaanka; Seka; Pindika; Bidalaka.

Moordha Thaila or application of the oil to the head, is of four kinds:— (1) Abhyanga, (2) Parisheka, (3) Pichu and (4) Vasti (Sirovasti).

1. *Abhyanga*: Means smearing the head and hairs with oil medicated or unmedicated like Bhrongamalaka Thailam. Chandanadi Tailam etc., may be used for Abhyanga. (See my book on Abhyanga-Massage). Abhyanga is useful in Rooksha hairs, itching and dirt. (Vaagbhata).
2. *Parisheka*: Means pouring oil from a height in a stream over the head (an arrangement may be made so as to set back the oil so that it may not be wasted, by adjusting a receptacle, around the head as in the Sirovasti, which follows). Parisheka is useful in headache, burning sensation, ulcers in head etc.

3. *Pichu*: Means applying a cloth or Swabs of cotton soaked in medicated oil over the whole head and keeping them there for a considerable time; it is useful in alopecia, and eye troubles etc.
4. *Sirovasti*: This is a medical operation, peculiar to Aayurveda. It is useful in the treatment of diseases of the head such as, hemiplegia, cataract, parching of the mouth and in Vaata diseases. It consists of holding a medicated oil or a decoction or a fresh juice etc., on the head for considerable period of time, by means of a special device. The patient should have taken Sneha, Sweda and the appropriate Sodhana previously. He sits on a cushioned stool or chair and has to wear cylinder like cap made of skin *i.e.* open at the top and having a height of about 9 inches over the head. It should fit his head exactly. Previous to fitting the skin cap (topless), a tape or piece of cloth is tied around the head tightly. Then the cap is put on. It should form a receptacle, so as to contain any fluid in it and to cover the head all round. As there may be crevices or small apertures at the junction of the cap and the tape, and lest the fluid should escape through them soft blackgram paste (Maasha is to be soaked in water for some hours and when it is ground into a thick fine paste in a mortar) should be applied inside the hollow of the cap where it touches the tape *i.e.*, at the junction of the tape and the cap so as to cover all the crevices. This is kept in position for some time, in order that the paste is dried. The paste thus cements the crevices between the cap and the tape in about twenty minutes to half an hour. Then, the medicinal fluid or oil is to be poured on the head so that, it should be 1-1/2 inches deep over the head. The Sneha or fluid is to be luke warm and should be kept there for sometime. It should be kept in its place by the patient who is to be in a sitting posture till salivation occurs in the mouth or sweating on the head or mucous discharge in the nose appears. The

Sneha or fluid may be kept for 10000 Matras, that is about 3 hours in Vaata diseases, for 8000 Matras in Pitta disease and in Kapha diseases for 6000 matras (Vaagbhata) (A matra may be taken nearly as equal to a second) A healthy man may keep Sneha over the head for 1000 Matras. After the fixed time is finished, the Sneha should be withdrawn and also the cap and his shoulders, and neck, etc., should be properly massaged. A Sirovasti may be administered at most for 7 days consecutively. The application of the Moordha thaila, Sirovasti, etc., is limited to particular diseases.

There are other minor medical operations like Karnapoorana or filling the ear with medicated oils. Karnapoorana with unmedicated gingelly oil is advocated for a healthy person (Swastha). It should be held in the ear for 100 seconds and then thrown out. But, in a case of pain in the ear, etc., it may be held in the ear till the pain is alleviated. In pain etc., medicated oils are especially useful like Hingutriguna Thaila, Dhattura Thaila etc., (Refer to One hundred Useful Recipes).

For diseases of the eye, the following measures are advocated :
(1) Aschotana, (2) Anjana, (3) Tarpana, (4) Putapaka, (5) Seka, (6) Pinda, (7) Bidaalaka.

1. *Aschotana* : This is dropping into the eyes, the particular medicated fluid from a height of two inches. In Vaata, warm Aschotana is needed; in Kapha luke warm medicine, and in Rakta and in Pitta cold medicine is needed. In eye diseases, many fresh juices are advocated as eye drops.

2. *Anjana* : This is of three kinds :- (1) Lekhana, (2) Ropana, (3) Dristiprasaara. Lekhana Anjana is generally prepared with drugs of astringent, sour and salty taste. Ropana Anjana is prepared with bitter drugs and Prasada Anjana is prepared with drugs, which are sweet and have Seetha guna. This anjana again is of three kinds (1) Pinda, (2) Rasakriya, and (3) Churna. Pinda is prepared by drugs which are Teekshna; it is administered when there

is much Dosha. When the Dosha is moderate Rasakriya is employed: it is prepared with Mridu substances. Both these *i.e.*, Pinda and Rasakriya are gum like. Choorna or powder is also employed, when the Dosha is very little. What is called Surma (Choorna) in Northern India is very popular as an application to the eyes. It contains antimony and other drugs delicately scented and praised very highly as removing itching, giving clearness to eyes and also improving eye sight.

Anjana means application of medicine into the eye lid like a collyrium. Anjana should not be administered during sleep, during night time or in the hottest part of the day. It is best applied in the morning and evening. It should not be administered in fever, diseases of the head, indigestion etc., or when the patient had taken Vamana, Dhoomapaana etc. After the Anjana is applied, the patient should not open his eyes but has to move his eyeball from side to side with his eyes shut. The eyes should not also be washed immediately.

3. *Tarpana* : When there is much Vaata affecting the eyes, *i.e.*, when the eyes are stiff and in some other eye diseases, Tarpana is especially useful. This should be applied only after proper Sneha, and Sodhana Karmas.

The patient should lie on his back and around his eye thin wall is to be constructed with Yava (Barley) paste or Masha, (black gram) flour mixed with a little water, so that it forms a shallow cuplike receptacle around the eyes. The patient should close his eyes and then pure ghee or ghee medicated specially (which is melted and made warm by putting the ghee pot in warm water) is to be poured over the eye and kept in the receptacle for 100 to 1000 Maatras—seconds according to the nature of the disease. (In Vaata, the maximum period is 1000 maatras, in Pitta 600, and in Kapha 500 maatras). The eye is thus immersed in the ghee. Then, the patient should gently open his eyes so that the ghee enters the

eyes. After the of lapse required time, the ghee should be drawn off from the eyes by making an outlet in the side of the wall of the paste. The patient may then take a Dhoomapaana. He should not see very bright light or the sun, on that day. This is a sort of Sneha Karma applied to the eyes.

4. *Putapaaka*: This is also of three kinds, viz., Lekhana, Snehana and Prasaadana. In Kapha, Lekhanam is useful. In Vaata, Sneha is useful and in Pitta Prasaadana is useful.

It is prepared thus: Meat of various animals, or substances like Jeevanthi, Kaakolee, or glutinous rice is ground with milk, (and in some cases mixed with other medicine powders also) and made into a bolus. This bolus is covered or wrapped with Eranda leaves and tied with a thread. This parcel is smeared with fine wet pasty earth all over and when it is sufficiently dry, it is carefully burnt in a small puta of cowdung cakes. Afterwards the parcel is taken out, the burnt earth and the leaves are carefully removed and the contents put in a clean cloth and the juice is expressed into a clean vessel. The patient should lie supine and a receptacle is made with Maasha paste over the eyes as in Sirovasti. The pressed juice is then put over the eyes. It is kept there for 100 to 200 maatras, the patient opening the eyes during the period. This process is called Putapaaka.

5. *Seka*: Seka consists of pouring the medicated fluid over the eyes (closed) in a stream from a height of 3 inches. It is also of three kinds viz., Sneha, Ropana, Lekhana. Generally warm goats milk medicated with drugs is used. It is also called Parisheka.
6. *Pindika*: Leaves (generally Sigrū, Dhaatree, Nimba etc.) or substances like Thriphala are pounded, mixed with sneha, ghee etc., and the bolus is put over eyelid either hot or cold according to the state of the disease and a bandage is applied so as to retain it in its position. This is very useful in conjunctivitis (Abhishyanda).

7. *Bidaalaka*: Substances like Yeshtimadhu, Gairika, Saindhava-lavanam, Daaruharidra, manohva etc., are made into a paste and smeared in a circular way around the eyes, not touching the eyelids or the eyes proper.

There are many prescriptions given in text-books for the above operations. They are to be considered descriptively in individual cases. For general use-see prescriptions.

IV

BAHIH PARIMAARJANAM

(EXTERNAL CLEANING)

CONTENTS: Bahih Parimaarjanam; (External Cleaning); Pradeha.

Bahih Parimarjana Treatment is also employed in manifold internal disorders. It is specially mentioned as one of the three principal methods of treatment in Ayurveda. These methods are Antah Parimaarjanam (internal cleaning), Bahih Parimaarjanam (external cleaning) and Sastra Pranidhaanam (surgical treatment). This classification must serve to indicate its importance and the scope of its usefulness.

Pradeha

Pradeha or lepa means anointing or besmearing or plastering the skin with medicinal pastes, etc. Susruta mentions three different kinds of lepa --Pralepa, Pradeha and Aalepa.

(Sutra - Chapter - 18)

Pralepa is the application which is generally cold (Seetah) and thin (Tanuh) and is one which does not dry. There is another which dries early, and stiffens the part to which it is applied. Pradeha is usually hot, but it may also be applied cold and it is thick and not so widespread and it should not become dry. In Vata and Kapha diseases hot Pradeha is used and in Pitta with Rakta Dosha cold Pradeha is used.

Although there is only some slight difference between these terms, these should be understood clearly because the particular application of one method to particular manner, according to Dosha Vitiating is very helpful and necessary. Any slight variation may spoil the good results. Alepa, being, not too thick nor too thin is useful as an application, in Rakta and Pitta and Pradeha is useful in Vata and Kapha generally. Pradeha further closes up the openings of a wound (*Sandhaanah*), cleans (*Sodhana*) and dries it up (*Soshana*). It allays inflammation and pain (*Sopha-vedanascha*). This may be employed in a Kshata or opea wound or Akshta (closed wound).

Tasyoruayoga khataakshteshu.

If Pradeha is employed on open wounds or injuries, it may be then termed as 'Kalka'. Such Pradeha stops exudations (like blood etc.,) from the wound. It makes the wound soft, clears the Doshas lurking in the wound and makes it a *Suddhavrana*.

In an Avidagdha Sopha (first stage of inflammation) Alepana is useful. Alepana relieves burning sensation and itching also. In Vidhagdha sopha (suppurating abscess etc,) and in advanced inflammation, Pradeha (which is also called Upanaah-Dalhana) is helpful.

Aalepa (or as a matter of fact any lepa) is not advised at the night time. In inflammations etc., that heat which should come out from the part by radiation is obstructed in the night time as during the sleep many of the srotases are closed up and the heat coming though the srotases in the inflamed part would be obstructed by the lepa that heat should not be obstructed.

Maahboot saityapithitoshmanah
Tadaairganaat vikaaraprapithviti.

The paste should always be freshly prepared.

Nacha paryushitam lepam
Kadaait avacharayet.

Susruta-Chapter 18. V. 14.

If Aalepa, etc. become dry, they should be removed except the kind of pralepa which is intended to become dry and thus stiffen the part, so as to cause a breach in the part in selected cases.

When Aalepa is advocated for the face, it is called Mukhalepa. This also is of three kinds—(1) That which eradicates the Doshas (*Doshaghana*), (2) That which counteracts poison or its effects (*Vishaghana*) and (3) that which causes lustre and brilliance to the face (*Varnakruth*).

Here too, in Vata and Kapha, hot or warm applications is advisable and in Pitta cold applications are desirable. The sodhaghana lepa of the face should be of the thickness of one Angula (thumb thickness) and the Varnakriti lepa should be of an half an inch thickness. The ointment should be retained on the face as long as it is not dry. When it is dry the lepa is not useful and it may also be painful. A person with such ointment on the face, or any other paste should not sleep in the day time, should not talk too much and should avoid exposure to fire and sun, and should avoid emotions like anger and grief. The Aalepa should not be employed in Peenasa indigestion, or where Nasya karma has been performed, in Hanugraha (lock jaw), anorexia (*Arochaka*) and when the patient has been awake during the previous night.

There are many recipes of Mukha lepa, in Ayurveda, both for skin diseases and for use in health. Vaatsyayana advocates such lepas to increase the beauty, and lustre of the face and many prescriptions are given by him. Kunkumadi Lepam is a face cream popularly used by us. The chief ingredients are Kumkuma (saffron), Rasa Sindhur, Pacha Karpooora (camphor purified), Kasturi (Musk), Sandal-wood oil, etc., (See One Hundred Useful Recipes).

Besides, many Recipes are given in skin diseases of the face. For instance Vacha, Punarnavam, Devadaru, Saate Siddhartha (*Mustard*), Sigru, some or all of these pounded into a paste with Aaranaala this allays inflammations (*Saarangdhara*).

The pulp of Vibheethaki fruit (a component of Triphala,) made into a paste with water and applied, alleviates burning sensa-

tion, pain, etc., (*Saarangadhara*). A paste of Vacha in water is good for removing discolouration of skin on the face.

Sireesha, Yeshtimadhu, Tegara, Rakta chandana, Ela, Jata-amamsi, Haridra, Daruharidra, Kustam and Valkam all powdered and mixed with one fifth part of ghee is useful in Visarpa, Poisoning, Vishapotaka, Inflammation and Dustavrana etc., (*Ibid*).

For other well known preparations like Tuwarakadi Lepam, Rasothamadi Lepa, which are very useful in skin affections. Refer to One hundred Useful Recipes, by the author.

For Parsheka-See Sweda Karma. For Mardana - see 'Massage'.

Sastra Pranidhanam—(*i. e.*) Surgical treatement and Raktha Mokshana are dealt with in separate sections. These are too elaborate to be dealt with here.



CHAPTER III

I

THE HUMAN BODY

CONTENTS : The Human body; The Three Dhaatus (Nutrients); Sapta Dhaatus; The Three Malas; Channels; Srotases.

The human body consists of nutrients, stationary Dhaatus, (*i. e.*, tissues), and debris.

“Doshadhaatu malaamoolam hi
Sareeram”

Susruta -Sutra - Ch, 15-L, 5

The three Dhaatus (NUTRIENTS)

The nutrients are made up of *Anna*, *Udaka*, and *Praana* - solids, liquids, and gaseous material supplied to the organism. These are transformed in the process of digestion into the three substances called *Vaata*, *Pitta* and *Kapha* which are called the three supporters of the body-the three *Dhaatus*.

The three *Dhaatus* in the normal state are in the form of a very fine fluid, which circulates in every part of the body. They feed the cells and tissues with the materials that each requires for its nutrition and growth. The *Thri-Dhaatus* together may be described as the ingoing organised protoplasm *i. e.*, nutrient material in circulation, out of which several tissues are formed and also nourished.

shed. But, in the pathological condition, *Kapha* has a tendency to get congealed and to obstruct the passages (*Srotases*) and damage the processes of lubrication; *Pitta* has a tendency to become more liquid and to weaken the digestive and bio-chemical processes in the body and *Vaata* has a tendency to expand indefinitely and to disturb the nervous activity or the vital forces in the body. (For further information, read *Thridosha Siddhaanta* by the author).

Sapta Dhaatus.

The tissues, which are supported by these nutrient fluids are called *Sapata Dhaatus*. They are seven in number. They are:

1. *Rasa*—a colourless liquid having only white cells corresponding to chyle (*Aahaara Parinaamadhaatus* - Charaka Sareera-Ch. 7 - V. 14),
2. *Rakata*-Blood-a red coloured fluid consisting of Plasma, white, cells and red cells etc.,
3. *Maamsa* - muscle - tissue,
4. *Medas* - Fat tissue,
5. *Asthi* - bone tissue,
6. *Majja* - bonemarrow tissue, which possibly includes brain matter. *Mastulunga* and the nervous tissues relating to it,
7. *Sukra* - Sperm tissue in the male and the corresponding tissues in the female. All other tissues, sub-divided differently in modern medicine, are included in one or other of these seven Dhaatus. The tissues, which are lower down in the order of development are more voluminous and evolve into the higher tissues which are gradually less in volume and of greater importance in the bodily economy. Although in the stationary condition, some of the tissues are liquid, some are soft and others are hard solids, the different tissues have their own fluid state and are contained in the *Aahaara Rasa* the fluid which supplies them with all the special materials required for their nutrition and growth. For instance, a unicellular organism such as an *amoeba* or the human cell (*Sajeeva Paramaanu*) has all the seven *Dhaatus* in the rudimentary state more or less in the liquid form. The three *Doshaas* which are the primary nutrients and the three *Malaas* which are the final excreta—the typical debris are also there.

The three Malaas.

The three *Malaas*, the solid faecal matter the liquid urine and sweat, are the three typical *Malaas* whose healthy existence is as

much essential for the normal condition of the body as of the three *Dhaatus* and the *Sapta Dhaatus*. There are other *Malaas* which are derived out of the tissue metabolism both in health and disease. The gaseous debris namely the expired air, the air transpiring through the skin and the air passed out as flatus is also one of the *Malaas*. When these thirteen constituents are healthy, they are said to be in a *Prasaada* state (*Prasaadabhoota*) and when they are vitiated in any manner they are said to be in a *Malaa* state (*Malaabhoota*). (See-Susruta-Sutra-Ch. 15 and Ch. 24-L. 9)

It is the *Malaa* state of any of these 13 constituents that is responsible for ill-health or disease.

Channels (Srotases)

These 13 constituents of the body have their own channels in which they move in health and disease. These channels are called *Srotases* and their seats are called *Aasayaas*. Some of these *Srotases* are very large like the alimentary canal and some are small like the arteries and veins and others are very minute and microscopic like the capillaries, nerve terminals and lymphatics. The larger channels according to Aayurveda are 13 and the minute channels are countless. The larger *Srotases* are — 1. *Annavaaha Srotas* that which carries the solid food materials; 2. *Udakavaaha Srotas* that which carries the liquid food material; 3. *Praanavaaha Srotas* - that which carries the gaseous food; (4 to 10) - the channels which carry the seven tissues (4. *Rasavaaha Srotases*, 5. *Raktavaaha Srotases*, 6. *Maamsavaaha Srotases*, 7. *Medovaha Srotases*, 8. *Asthivaha Srotases*, 9. *Majjaavaaha Srotases* and 10. *Sukravaha Srotases*); (11, 12 and 13) the channels which carry the waste material, namely, faecal matter, urine and sweat (*Mootravaha Srotases*, *Pureeshavaha Srotases* and *Swedavaha Srotases*) respectively. The smaller *Srotases* include all ducts and channels which are called arteries, veins and capillaries, nerves, lymphatics, ureters, hair-follicles, sweat-glands etc. These are included in the connotative word *Srotas* (duct) although they have different names, structures and functions. Some *Srotases* carry inwards the different materials required for the nutrition and growth of the different tissues and others carry outwards the waste materials that are not required for the body. The *Thridhaatus* - *Vaata*

Pitta and Kapha are, however, present in every part of the body and they move in every *Srotas* (channel) and therefore there are no particular channels exclusively for them.

(Charaka-Sroto-Vimaana).

As long as the *Srotases* are in the normal state and the circulation of Three Dhaatus is free and un-obstructed, the body cannot be affected by any disease.

“Tadetat srotasaam prakritibhootatwaat
na vikaaraih upasriyate sareeram”

Charaka - Vimaana - Ch. 5 - L, 8.

II

WHAT IS DISEASE ?

Disease may be defined histologically as the morbid inter-action of *Doshaas*, *Dhaatus* and *Malaas*. When they move in their own channels called *Srotases* without any obstruction, there will be no morbid inter-action and no disease. But, when the vitiated *Doshaas* circulating in the body, get stuck up in any of the ducts or tissues, they cause a morbid inter-action at that place which becomes the first seat of disease.

“Kupitaanaamhi doshaanaam
Sareere paridhaavataam
Yatra sangah (swa) khavaigunyaat
Vyaadhih tatra upajaayate”.

(Susruta-Sutra Ch. 24 - V, 10)—See also P. 5 - Pathology

When an obstruction takes place, a series of changes follow. The various stages which the *Doshaas* undergo are classified into six.—

1. *Sanchaya*: Accumulation of the *Doshaas*.
2. *Prakopa*: Their Excitement, or Provocation.

3. *Prasara*: Expansion.
4. *Sthaanasamsraya*: A change of place or localisation.
5. *Vyakti*: Exhibition of a fullfledged disease.
6. *Bheda*: Destruction of tissues.

Susruta says that a physician who carefully studies these six stages, may check the further advance of the disease at any of the stages which are called the six *Kriyakaalaas*. Upto the 5th stage called *Vyakti* or *Vyaadhi*—the disease proper, the premonitory symptoms only are exhibited and the disease may or may not be established. In the fifth stage, the whole symptom-complex is present and the particular disease is differentiated from others. The term “*Doshadhaatu Sammoorchanam*” in Aayurveda includes not only all inflammatory conditions but also all pathological states such as diabetes, which is considered as a metabolic disease and rickets, which is considered as a deficiency disease. Thus *Dosha Dhaatu Sammoorchanam* has a wider application, which includes all diseases—microbic, metabolic or deficiency diseases according to modern classification.

Disease may thus be defined in Ayurveda as *Dosha Dhaatu Sammoorchanam* when it is looked at from the stand point of histology; i. e., it may be considered as the morbid inter-action between the vitiated *Doshaas* (deranged nutrients) and the tissues.

This inter-action is divided into Six stages called the Six *Kriyakaalaas* as stated above.

(1) *Sanchaya*, (2) *Prakopa*, (3) *Prasara*, (4) *Sthaana Samsraya*, (5) *Vyakti* or *Vyaadhi*, (6) *Bheda*.

As a result of the morbid inter-action, we find :

1. Swelling—(*Sopha*)
2. Ripening—(*Paaka*)
3. Abscess formation—(*Vidradhi*)
4. Ulcer formation—(*Vrana*)
5. Necrosis and Gangrene—(*Kotha*)
6. Resolution—*Roga Vimukti* or *Moksha*.

Each of these stages represents a *Kriyakaala* a period suitable for the treatment of the Progressive disease.

The physician should not wait until full fledged disease is established with all its symptoms. He should not waste his time in finding a name for the disease. He should not allow the disease to progress from the earlier to the next stage, if it is at all possible. (Charka Sutra - 18.51)).

For this purpose, it is necessary to study carefully the premonitory symptoms in the earlier stages and the various causes which contribute to the origin of the disease—(See Vol-IV. Sec-2. The Principles of Pathology by the author).

When the disease proceeds unfavourably *Dhaatu Paaka* or destruction of tissues takes place—And when it proceeds favourably *Dosha Paaka*, resolution of the morbid processes ending in recovery more or less of the normal condition takes place—our aim is to check *Dhaathu Paaka* and to promote *Dosha Paaka*.

III

The Object of Medical Treatment

CONTENTS: The object of Medical Treatment; The three states in which the Doshaas exist; Elimination of vridhdha Doshaas.

The objects with which medical treatment is conducted by the physician is stated succinctly in one verse.

“Samsodhanam samsamanam
Nidaanasya cha varjanam
Etaavat bhishajaa kaaryam
Roge roge yathaavidhi”

—Charaka - Vimaana-Ch. 7-V. 33.

1. Removal of Pathogenic agent by purging it out of the body (*Samsodhanam*).

2. Relieving the tissues of the evil effects caused by Pathogenic agents and soothing the excited *Doshaas*. This also includes the improvement of the *Ksheena Doshaas* and *Dhaatus* reduced below normal.

3. Rooting out the original causes that were responsible for the origin of the disease (*Prakriti Vighaata*), i.e., removal of the original causes of *Dosha* vitiation such as *Ahitasevanam* (improper food or conduct) and restoration of natural powers of resistance. If the *Doshaas* are slightly vitiated, they may be subdued in their places and brought to normal; if they are highly vitiated they should be considered to be injurious foreign bodies (*Salyabhootaah*), which should be removed either by medical or surgical treatment (expulsion).

“Tat (salyam) dwividham, Saareeram
Aagantukamcha-tatra saareeram
Romanakhaadi dhaatavah annamalaah
Doshaascha dustaah; aagantvapi
Saareera salyavyatirekena yaavanto
Bhaavaah dukkhamutpaadayanti”

—Susruta-Sutra-Ch. 26-Line 4-6.

The three states in which the doshaas exist.

The condition of the *Doshaas* is divided into three classes.

1. *Vridhhi*—Increase, 2. *Sthaanam* or *Sthithi*—the normal condition, 3. *Kshaya*—decrease—These are to be recognised for purposes of treatment.

(See Dehadhatu Vijnaanam)

The increase of the *Doshaas* is known by abnormal activity and exhibition of the signs by which the particular *Dosha* is recognised. The decrease of *Doshaas* is recognised by the absence of signs indicating their presence and their normal state is recognised by a feeling of health resulting from the harmonious action of the *Doshaas*.

Elimination of Vridhdha Doshaas

Although the *Doshaas* continuously circulate throughout the body in diseased conditions, their movement is abnormally directed in 3 ways—1. *Oordhwagati*—Upward movement; 2. *Adhogati*—Downward movement; 3. *Ubhayagati*—Both upward and downward movement.

According to the seat in which the abnormal *Doshaas* exist they are said to move (1) in the Internal route (2) in the External route and (3) in the Middle route. (1) Internal route (*Aabhyantara-maarga*):—when their abnormal movements are confined to *Kostha*-alimentary canal, they are said to be moving in the internal route.

Kostah punaruchyate mahaa srotah
Sareeramadhyam mahaanimnam
Aamapakwaasayascheti paryaya
Sabdath tantre, sa rogaamaarga
Aabhyantarāh”

—Charaka-Sutra-Ch. 11. L. 48.

When the *Doshaas* are moving in the internal route, it is easy to eliminate them either by vomiting or purging etc., (*Sodhana*) or by subduing them in their place (*Samana*), (2) The external route—*Baahya Maarga*. When the *Doshaas* move in the external route they extend into the *Saakhaas* or branches as it were. The branches are seven. 1. *Twak*, which is the primary, external seat of *Rasadhaatu*, 2. *Raktadhaatu*, 3. *Maamsadhaatu*, 4. *Medas*, 5. *Asthi*, 6. *Mojjaa* and 7. *Sukra*. When the *Doshaas* are seated in these *Saakhaas*, it is more difficult to dislodge them than when they are seated in the alimentary canal—*Koshta*. They have, first, to be unlocked by fomentation—*Sweda Karma* lubrication—*Sneha Karma* and other methods, so that they are dislodged from their seats and brought into the general circulation and finally into the *Koshta* where-from they have to be eliminated either through *Athomaarga* or *Oordhwamaarga* or by both.

“*Vridhdhyaa vishyandanaat** paakaat
Srotomukhavisodhanaat
Saakhaam mukt vaa malaah
Kostham yaanti vaayoscha nigrahaat”

—Charaka - Sutra-Ch. 28-V. 30.

* *Abhishyandanaat* is another reading but '*Vishyandanaat*' is the proper reading as it is so commented by Chakrapaani.

The *Malaas* (*Doshaas*) which are seated in any *Saakhaa* go back to *Koshta* again on account of the following reasons. 1. *Vridhdhyaa* State of increase of the *Dosha*. (the increased *Dosha* naturally turns back when it cannot proceed further), 2. *Vishyandanaat*—state of liquifaction (when it trickles down into *Koshta* which is also called *Mahanimna* (or the big hollow cavity at a lower level), 3. *Paakaat*—due to ripening, 4. *Srotomukha Visodhanaat*—due to purification of the opening of *Srotases* and 5. *Vaayoscha Nigrahaat* by controlling the *Vaayu* (the nervous control which is responsible for the scattering of the *Doshaas* from *Koshta* to *Saakhaas*).

3. The Middle route:— The more difficult seat or situation in which the *Doshaas* may be lodged are the *Marmaas* and *Asthi Sandhees* (joints of bones). It is much more difficult to dislodge the vitiated *Doshaas* from these situations. The chief *Marmaas* from the medical stand-point are said to be the head, the chest and the pelvic area.

The necessity for studying the details of the abnormal condition of the *Doshaas*, the movements of the *Doshaas* and their seats arises because such knowledge greatly helps in the elimination of the *Doshaas* more easily.

(See—Principles of Diagnosis—P. 27-etc.)

IV

CLASSIFICATION OF MENTAL DISEASES

Considered as a whole, diseases may be divided according to their seat into bodily and mental diseases. In the bodily diseases, the cause is the derangement of the *Three Doshaas* which become enemies or foreign bodies instead of being their supporters.

Mental diseases are caused by '*Rajas*' and '*Tamas*' which are *Doshaas* of the Mind. Owing to faulty understanding ((*Prajnaa-paraadha*), these two *Doshaas* predominate and cause various diseases amongst which are primarily mentioned - *Kaama* (lust), *Krodha*

(wrath), *Lobha* (greed), *Moha* (Delusion), *Eershya* (envy), *Maana* (pride); *Mada* (arrogance), *Soka* (grief), *Chittodvega* (anxiety), *Bhaya* (fear), *Harsha* (joy), etc. In Aayurveda, the term Mental diseases is not restricted in its use to Insanity and allied conditions but it also includes such disorders of emotion as are noted above.

The human being consists of a combination of a physical and a mental body and is defined as follows:—

“Sareerendriyasattwaatma somyogah anyuh”

—Charaka - Sutra - Ch. I.

That is (1) the physical body, and (2) the mental body which consists of the senses (*Indriyaas*), the mind (*Sattwa*) and the *Aatma* (individual soul). The mind is said to be the organ of internal sense—*Antahkarana*—The *Antahkarana* is divided into four faculties—*Mano*-*Buddhi*-*Chitta*-*Ahankaara*.

The faculty of *manas* is perception; of *Buddhi* is the power of understanding and finding right and wrong; the faculties of *Chitta* are concentration (*Dhyaana*) and remembrance-memory (*Smriti*) etc., and the faculty of *Ahankaara* comprises of the ego, i.e., the faculty of feeling ‘I’ ness or ‘Mine’ ness. In Aayurveda, the words *Chitta*, *Manas*, *Sattwa*, *Artha*, *Chetas*, *Hridya* are sometimes used synonymously.

In modern medicine, the words, mind and soul are used more or less synonymously (See Philosophical Back-ground Chap. VI The Hindu conception of Mind and Matter). But in Aayurveda the word ‘Soul’* which means *Jeevaatmaa* - *Pratyagaatmaa* - *Karma Purusha* - is used to denote the individual soul, which, on account of its attachment to the mind, suffers or enjoys the results of the past and present actions.

The constituents of the Mind are called *Sattwa*, *Rajas*, *Tamas*. They are derived from *Prakriti* - the pre-mordial matter.

* The word ‘Soul’ is used for universal ‘Soul’ of which the individual soul is a part according to *Advaita*. It is a reflection (*Amsa*) according to ‘*Visistadvaita*’. The dualists (*Dwaitas*) consider the universal Soul and the individual soul as being different although both are eternal.

The pre-mordial element is *Prakriti*, whose constituents are *Sattwa*, *Rajas* and *Tamas*. The equilibrium of these is health. The pre-dominance of *Rajas* and *Tamas* is responsible for all diseases of the mind. Therefore *Rajas* and *Tamas* are said to be the two Doshaas of the mind, just as *Vaata*, *Pitta* and *Kapha* are the Doshaas which are responsible for bodily ailments. The predominance of *Sattwa* is desirable as on it depends the proportionate absence of exhibition of *Rajas* and *Tamas*. As regards the relationship of *Trigunaas* with *Thri Doshaas* - please read *Thridosha Siddhanta* by the author.

It may, however, be stated here that *Vaata* is predominantly of *Raajasik* origin, *Kapha* of *Taamasik* origin and *Pitta* of *Saatwic* origin. *Pitta* has the property of enlightening (*Prakaasa*). The condition of the mind and the body is always inter-dependent (*Anyonyaasraya*), the one varying with the altered condition of the other. Example - A metal cup, is heated by placing hot ghee in the cup; and cold ghee when placed in a hot metal cup is similarly heated. In the same manner any affection of the body also affects the mind and any affection of the mind affects the body also. But there may be difference in the degree of affection in different diseases.

V

CLASSIFICATION OF BODILY DISEASES

As regards classification and enumeration of bodily diseases, the diseases cannot be counted being unlimited. But, the Doshaas which cause these unlimited number of diseases are only three and even their combinations and permutations can be easily counted and studied. Therefore, Aayurvedic physicians devote more attention to the study in minute detail, of the various conditions of the *Doshaas* than to the enumeration of the diseases. It is essential that the physician should know the curability or the incurability, the mildness or virulence, and also to ascertain whether the disease originates inside the body (*Nija*) or whether it is due to injury or

invasion by microbes etc., (Aagantu). All metabolic diseases according to modern medicine may be classed under 'Nija' diseases and all microbic may be classed under 'Aaganthu' diseases. It should, however, be noted that this classification is uncertain because in many microbic and virus diseases, the microbe causing the disease may not be detected until at a late stage of the disease or sometimes never detected at all. To the Aayurvedic physician, although the detection of the microbe (Vishakrimi) may be of some importance, it is the careful and systematic study of the Dosha vitiation that helps him most in the treatment of the disease. If the soil is made unsuitable for the growth of the microbe, it leaves the body or dies without causing any injury.

Manifoldness of diseases.

Both in Aayurveda and in modern medicine diseases are classified in many ways.

1. According to symptoms exhibited by the morbid interactions of the Doshaas, Dhaatus, and Malaas. This is a pathological or histological classification.

2. According to the seat at which this inter-action takes place - Adhistaana - mind or body.

3. According to organ affected - Sthaana - it comes under Dehadesa according to Aayurveda, e.g., stomatitis, tonsillitis, gastritis and so on.

4. According to geographical distribution of diseases in different countries and in different times, e.g., Malta fever.

5. According to the cause or causes which are responsible for the Dosha vitiation, e.g., microbic diseases such as small-pox, metabolic diseases such as diabetes, and deficiency diseases such as beriberi.

Oneness of disease and oneness of treatment.

In this manner, although the diseases may be classified in many ways and their number is a multitude on account of various conditions such as virulence of the attack (Prabhaava), strength and power of resistance of the patient (Bala), seat of the disease,

(Adhishthaana - mind or body), causes (Nimitta) and organs (Aasaya) that are affected and although the symptoms exhibited by the diseases vary in various ways necessitating the classification of diseases into various kinds, the state of disease or ill-health is, in fact, one as contrasted with the state of health which is the opposite of ill-health.

Prabhava - Bala - Adhistaana - Nimitta - Aasaya - Bhedaat. Eka-meva Rogaaneekam Duhkha Saamaanyaat - Bahutwamtu Dasa Rogaanee-kaani - Prabhavabhedaadinaa Bhavanti.

—Charaka-Vimaana-Ch. 6-4, 3.

The common symptom for all diseases is the suffering to which every patient is subjected.

Just as the disease which may be considered as a disturbance in the state of equilibrium of the Doshaas is one, the treatment is also one, namely restoration of the equilibrium of the Doshaas, whatever may be the methods by which this is done. This is the state of health in which all suffering disappears

VI

INVESTIGATION OF DISEASE

Having known the distant and immediate causes of a disease, the exact seat of Dosha vitiation and the routes in which the disease spreads, the physician should determine the stage and virulence of Dosha vitiation and the proportion in which each Dosha is excited or reduced, having regard to the virulence or otherwise of the offending agent (food, microbe, injury etc.), the power of the resistance (Bala) of the patient (inherited or acquired and that due to Kaala (time) and Desa (country), Anala (state of digestive fire), Prakriti (temperament), Vayah (age), Sattwa (mental condition), Saatmya (habits) and Aahaara Sakti (capacity for digestion of food), Vyaayaama Sakti (power to exert), Nidraa (restfulness or otherwise) and Brahmacharya (preservation of vital fluids through regulated sex life) and other conditions which have a bearing on the individual's power of resistance to disease. All

these contribute to what is called 'Immunity' in modern medicine. This investigation includes all the methods of Roga Pareeksha examination of the disease and Roga Pareeksha examination of the patient by the four methods of investigation, namely Pratyaksha (Direct perception), Anumaana (Inference), Upamaana (Analogy) and Aaptavaakya (Authoritative testimony). See Chap. 9, 10 and 11...Principles of Diagnosis.

Determination of Prognosis.

Having studied all these details, the prognosis as to the curability (*Saadhya*) or otherwise (*Asaadhya*), and also whether it is easily curable (*Sukha Saadhyam*) or curable with difficulty (*Krichchra Saadhyam*), or only curable as long as treatment is given (*Yaapya*) should be established before the treatment is commenced. Even in cases in which any of the above data for investigation are not available, it is possible for an Aayurvedic physician to start the treatment according to the condition of *Dosha* vitiation. That is why the greatest importance is attached in Aayurveda for the study of the exact condition of the *Doshaas*.

"Sarvavikaarah vaata, pitta, kaphaan
Naativartante, vaata, pitta, shleshma
Naam punah sthaana samsthaana
Prakriti viseshaanabhi sameekshya
Taddimakaanapi sarvavikaaraan
Taaneva upadisanti buddhimanta iti".

—Charaka-Sutra-Ch. 19-L. 16.

A physician will never go wrong as long as he proceeds in a scientific manner and faithfully carries out the treatment as stated in the texts even though he is unable to determine the name of the disease.

"Yo hyetat trividham jnaatwaa
Karmaani aarabhate bhlshak
Jnaanapoorvam yathaanyaayam
Sa karmasu na muhyati".

—Charaka-Sutra-Ch. 18-V. 53.

VII

LINE OF TREATMENT

In the early stages of the disease, i.e., in the first three states namely, *Sanchaya* - accumulation of the *Doshaas*, *Prakopa* - excitement, and *Prasara* - expansion, and before localisation actually takes place (*Stihaana Samsraya*), we can observe only certain premonitory symptoms. The full fledged disease is not yet established and the exact seat of the disease is not yet known. (See Pathology Sec. II, Page 15). Even under these conditions, the physician should not wait but give the treatment suitable to the *Dosha* vitiated in the different *Kriyaa Kaalaas*. Sometimes the onset of the disease may thus be averted; but after the seat is localised, the treatment should be directed towards alleviation of the *Doshaas* or the alleviation of the disease or both. In so doing, the *Upadrava* or urgent complication, if any, should be attended to immediately.

"Tesdaam pradhaana prasame
Prasamo asaamyatasthaa
Paschaat chikitset, toornam vaa
Balavantam upadravam"

—Vaagbhata-Sutra-Ch. 13-V. 62.

The principal characteristic symptom is called the disease and is called *Swatantra*.

The remaining symptoms are called *Paratantra* or which are dependent on the principal disease. These include the complications. The principle of treatment is that all these tormenting symptoms are generally got rid off when the '*Swatantra*' disease is treated but an *Upadrava* which is very urgent (*Balavantam*) should be treated first.

Certain important points should be noted while considering the line of treatment. See below.

1. Always try to extract the *Dosha* during the stage of *Sanchaya* by means of *Sodhana*, such as *Vamana* (emetics), *Virechana*, (purgatives), *Niroohavasti* (enemata), and *Seershavirechana* (errhines) and blood

letting (Raktha Mokshana) according to the suitability in each case. These five are the *Sodhanas*, one or more are to be used according to suitability. It should be noted that the method of *Sodhana* (extraction) designed for the accumulated *Sodhana* (extraction) designed for the accumulated *Dosha* should not unduly interfere with any other vitiated *Dosha*.

“Chaya eva jayet dosham
Kupitam tu avirodhayan”

—Vaagbhaata Sutra Ch. 13-V. 15

If more than one *Dosha* is vitiated, the most predominant and troublesome *Dosha* should be first attended to (for extraction—*Sodhana* or amelioration—*Samana*). In so doing, the remaining *Doshas* should not be made to vitiates, by an over zealous and excessive application of the therapeutic process — *Sodhana* or *Samana*. The best course of treatment is one which extracts or allays the predominant *Dosha* without vitiating any other *Dosha* in the least.

“Sarvakope baleeyaamsam
Sesha doshaa virodhatah,
Prayogah samayet vyaadhim
Yo anyamanyam udeerayet
Naa sou visuddhah; sudhastu
Samayet yo na kopayet”

—Vagbhata-Sutra-Ch. 13-V. 16

Having judged well the state of the *Doshas* etc., which comprise, the disease, a line of treatment (such as *Vamana*) is to be put into action. When that course has given its proper effect or when it has failed due to unsuitable dose etc., the same may be repeated or another line of action may be substituted, when the force of the former line of action is exhausted. For instance, in a particular state of disease, where emetic and purgative are to be used, usually one is used, say, the emetic, and when its force is exhausted, *i. e.*, usually after 5 or 6 days, the purgative is to be given. Hasty repetition or substitution of the lines of treatment is condemned.

Kriyayaastu gunalaabhe
Kriyaamanyam prayojayet
Poorvasyaam saantovegaayaam
Na kriyaasankaro hitah.

—Susruta-Sutra-Ch. 35. V. 48

When a *Dosha* or *Doshas* are vitiated in places other than their own, and when such *Dosha* or *Doshas* are not strong enough, the treatment is according to the nature of the stationary *Dosha* and not according to the nature of the intruding *Dosha*. For instance, if *Vaata* is vitiated into *Aamasaya*, which is the seat of *Kapha* and if the *Vaata* is not very strong, the treatment is for, *Kapha* (*i. e.*,) *Langhanam*, *Vamana*, *Rooksha Karma* etc., which should be the treatment for the intruding *Vaata*. Similarly, if *Kapha* is vitiated and extends into *Pakwaasaya* (a seat of *Vaata*), *Rooksha Karma* etc., is not done for the *Kapha*, but *Sneha Karma*, *Vasti* etc., are necessary checking *Vata* first.

“Tatra anya sthaana samstheshu
Tadeeyaam abaleshu tu”

—Vaagbhata-Sutra Ch. 13-V. 20.

But if the *Dosha* extending into another's region is very strong and powerful, the treatment is then according to the nature of the intruding *Dosha* and not according to the nature of the *Dosha* relating to the seat. After providing proper safeguards (in-treatment) for the *Dosha* of the seat (*Sthaanee*) *i. e.*, after making amends so that the stationary *Dosha* may not vitiates, the proper treatment should be given for the strong intruding *Dosha* (*Aagantu*).

“Kuryaat chikitschaam swameva
Balena anyaabhibhaavishu,
Aagantum samayet dosham
Sthaaninam pratikrttya vaa”

—Vaagbhata-Sutra-Ch. 13-V. 20-21.

To illustrate the above point, if *Vata* extends into *Aamasaya* (*Kapha Sthaana*) and causes (See *Vaata Vyadhi Nidaana*—Principles

of Diagnosis—Vol. IV. Section I—Pages 199 and 207) and causes pains in the sides, abdomen, heart region, and navel, thirst, belchings cramps, and excruciating pain, as if pricked with needles (*Visoochika*), (vomitting and diarrhoea also), cough, parching of throat and mouth and dyspnoea and if the Vaata is very virulent (strong), then intense Snigdha Sweda and Niroohavasti etc., are called for; if the excited Vaayu is weak, Langhanam and Vamana are useful.

Sodhana prohibited in Sama conditions.

See whether Aama Dosha co-exists with any Dosha or Doshaas. If Aama Dosha co-exists with the Dosha which causes the trouble, it is called Saama Vaata or Saama Pitta etc. The symptoms which distinguish Aama Dosha (not only in Jwara but in any disease such as Ajeerna, Atisaara, Grahini etc., co-existent with any Dosha are as follows.

Obstruction of the channels—*Srotasses* (*Srotorotha*), loss of strength, heaviness of the body, mal-functioning of Vaata, laziness, lack of digestion, hawking and spitting, non-evacuation of Malaas, anorexia, and weakness—these symptoms indicate the association of Aama Dosha along with Vaata or Pitta or Kapha. Lack of the above symptoms indicate Niraama Vaata, Pitta, etc.

“Srotorodha bala bhramsa
Gouravaanila moodhataah
Aalasyaapaktinishteeva
Malasangaaruchiklamaah
Lingam malaanaam saamaanaam
Niraamaanaam viparyayah”

—Vagbhata-Sutra-Ch. 13-V. 24

When a Dhosha or Doshaas are spread in the whole body and also associated with Aama Dosha, Sodhana treatment should not be given. Just as it is very difficult or impossible to extract juice from an unripe fruit, so also it is very difficult to extract the Dosha when it is in the Aama condition (unripe state) because the Doshaas are not localised to one place. For a similar reason, it is

a recognised fact that in a case of cellulitis or inflammatory swelling or gangrene, it is not advisable to perform any surgical operation until the wound is mature.

If, in such a case, a hasty Sodhana treatment is given, it only tends to destroy the body. Paachana (Digestive), Deepana, (appetisers), Sneha Karma and Sweda Karma are to be judiciously performed in such a case for some time and in the proper time the Sodhana treatment suitable according to the location of the Dosha is to be given. For instance, if the Dosha is seated in the head or parts of the head Seershavirechana is called for; if the Dosha is seated in the Aamasaya (the stomach or the region between the navel and nipples), Vamana is necessary; if the Dosha is seated between Aamaasaya and Pakvaasaya or in Rakta, Virechana is called for; if the Dosha is in the Pakawaasaya, Niroohavasti is called for. The dose of the extractive medicine (*Sodhana*) and the repetition of it are to be determined according to the strength of the patient, (Bala).

“Sarvadeha pravistrutaam saamaan
Doshan na nirharet,
Leenaan dhaatushu anntklishan
Phalaat aamaat rasaaniva
Aasrayasya hi naasavya te
Syuh durn rharatwatah -
Paachanaih deepanaih snehah,
Taan swedaischa parishkritaam
Sodhayet sodhanaih kaale
Yathaasannam yathaabalam”

—Vaagbhata-Sutra. Ch. 13. V. 28-30

“Hantyaasu yuktam vaktrena dravyam
Aamaasayaan malaan,
Ghraanena cha oordhwa jatruthtaan
Pakwaadhaanaah gudena cha”

—Vaagbhat Sutra, Chap. 13, V. 30

If the Doshaas are themselves expelled, *i. e.*, if they cure out of their own accord and if they carry Aama Dosha along with them as in vomiting, diarrhoea, discharges from the mouth, nose etc., they should not be obstructed or meddled with on any account; (here, the diarrhoea etc., are nature's efforts to expel the Doshaas and Malaas); they should not be made to stop by means of astringents etc., If these Doshaas are stopped, they only aggravate the disease. They should be allowed to be passed out of their own accord; if they stop of their own accord and if they are small in quantity *Paachana* should be given; if the Dosha is very much in quantity, it should be extracted by *Sodhana Karma*.

“Utklishtaan atha oordhwam vaa
Na chaamaan vahatah swayam,
Dhaarayet oushadhaih doshaan,
Vidhrutaaste hi rogadaah
Pravrittaan praagato doshaan
upeksheta hitaasinah
Vibaddhaan paachanaih taistaih
Paachayet nirhareta vaa”.

—Vaagbhata Sutra Ch. 13 I3 V 31, 32.

Similarly, the Doshaas which are lodged in the *Saakhaas* and *Marmaashi Sandhees* (Madhyama Roga marga-middle route) cannot be made to be eliminated initially without the proper *Sneha* and *Sweda Karmas*; such a hasty process only tends to lessen the digestive fire and weaken the patient. Such Doshaas are to be ameliorated (*Sammana*) if possible; or they have to be brought to the *Koshta* by proper *Sneha*, *Sweda Karmas* etc., and when they are brought to the *Koshta*, they should be eliminated by the nearest route.

(Charaka Nidaana. Ch. 8 V. 34 and Vaagbhata Sutra Ch. 13- V. 21, 22).

If any process of treatment is deemed necessary and the unfavourable season does not warrant the procedure, the necessary safe-guards to prevent the effects of the untoward season should be

taken and the necessary measure is to be pushed in all urgent cases. A necessary measure of treatment should not be put off on that account *i. e.*, on account of unfavourable season etc.; one should not waste the valuable time available for treatment of the disease.

“Kritwa seetoshna vrishtenaam
Prateekaaram yathaayatham
Prayojayet kriyaam praaptaam
Kriyaakaalam na haapayet”

—Vagbhata Sutra Ch. 13 V. 36.

The above are the general lines and details are to be found discussed in various chapters as *Sneha Karma*, *Sweda Karma* etc.

VIII

METHODS OF TREATMENT

*CONTENTS: Methods of treatment; Treatment by faith; Daivavya-
paasraya treatment; Yuktivyapaasraya; Sathvaavajaya treatment; Dosha
pratyaneeke Chikitsaa; Sneha and Sweda Karmaas.*

Methods of Aayurvedic treatment are primarily classified into three.

1. *Antahparimaarjanam* includes all internal treatment by food and medicines.
2. *Bahihparimaarjanam* consists of all external treatment which includes bodily cleanliness, and adjustment to environment.
3. *Sastra pranidhaanam* consists of application of caustics, leeches, actual cautery and includes the use of surgical instruments with the necessary skill.

Treatment by Faith.

All the above methods of treatment are guided by our reasoning and are known as *Yuktivyapaasraya* treatment. But, there are certain diseases where the *Adhisthana* (seat of disease) is in the

mind. In fact, all physical diseases have a mental counter-part and all the mental diseases have a physical counter-part and is difficult to draw a line of demarcation as to how far the treatment should be directed towards the physical diseases. A physical substance like alcohol affects the faculties of the mind and it should be no wonder that physical disabilities such as fever and diarrhoea should have peculiar effects of its own on the mind. A mental emotion like wrath (anger) causes flushing of the face and vaso-motor disturbance in the whole body. It is difficult to judge therefore how far these emotions themselves reduce the immunity or the power of resistance possessed by the normal body against disease and conversely it is also difficult to measure how far courage and faith increase the power of immunity against disease and also of resisting the disease even actually set in.

“Trividham khalu sattwam
Suddham, raajasam taama-
samiti.....sareeramapi sattwam
onuvidheeyate, sattwam cha sareeram...”
—Charaka Saareera - Chap. 4, Line 37.

In many diseases, *yuktivyapaasraya* treatment may not prove to be of much avail. Therefore Aayurveda recognises three methods of treatment as scientific.

1. *Daivavyapaasraya* Treatment - Treatment which depends upon faith.
2. *Yuktivyapaasraya* Treatment - Treatment which depends upon reasoning.
3. *Sattwaavajaya* Treatment - Treatment which depends on self control developed by concentration of the mind by constant practice and by detachment from outside objects (*Abhyaasa and Vairaagya*).

Daivavyapaasraya Treatment :

This treatment depends upon faith. The English word “psychic treatment” which means treatment of the mind or soul (which are both identical to them) is not at all a suitable transla-

tion of the term *Daivavyapaasraya* treatment. The word ‘*Daiva*’ means ‘relating to divinity’. It also means destiny, fate or fortune—that which is not known-*Adrishta*. The term *Daivavyopaasraya* relates to all the unknown circumstances, i.e., those which cannot be reasoned out and explained by the existing human knowledge. *Daiva* also relates to all that which is acquired before birth by the descent (inheritance of man) in the long course of natural evolution. ‘As you sow, so you reap’. The hereditary tendencies that are due to his family inheritance (*Jaati*-class or caste in which he is born), *Kula*-lineage such as professional descent, *Desa*-geographical descent, or *Kaala* and *Tuga*, the age in which one is—all of them have their own influence on the health and strength of the individual, which may not be known to us. It is they that are responsible for the good or bad qualities inherently possessed by any individual. The heredity of each individual is to a certain extent responsible for the individual being liable to disease or to his resistance to disease. The actions performed by him even after this birth are included in *Daiva Vyapaasraya*, because he alone is responsible for all these actions wholly, they are done with this body or with the past bodies.

Daivam aatmakritam vidyaat
Karma yat poorva, daihikam.

—Charaka Vimaana - III. 36.

Thus *Daivam* includes all those unseen circumstances which relate to the past Karma the results of which, the individual had to enjoy or suffer with this embodiment. That is why the individual is called Karma Pursha.

The following treatment in the shape of good deeds is recommended for diseases caused by *Daiva*.

—Charaka-Sootra-XI-62.

1. *Mantra*: The use of sacred hymns or words having spiritual potency.
2. *Aushadhi*: Contact with or mere touch of some potent herbs worn as amulets. Here internal medication of the herbs is not what is indicated.

Aaushadhee prasastaah dhaarayet.

—Charaka - Sutra VIII-18.

3. *Mam* : The touch of precious stones and gems-the influence of actinic or radio-active substances is probably indicated here. The action is called Prabhaava of the gems.
4. *Mangala* : Benediction or the influence of auspicious ceremonies invoking the blessings and good wishes of others.
5. *Bali* : Practice of self-denial and sacrifice.
6. *Upahaara* : Feeding of lower animals, poor feeding etc., as a symbol of mercy and comradeship with the helpless and the distressed.
7. *Homa* : Sacrifice, of ghee and fragrant disinfecting substances accompanied by auspicious prayers. Fire is considered as a visible symptom of god. So also the Sun.
8. *Niyama* : Practice of healthy habits and religious observances conducive to cleanliness and self-control.
9. *Praayaschitta* : Atonement for evil deeds committed in the past either knowingly or unknowingly.
10. *Upavaasa* : Fasting as a means of self-purification of the mind and the body.
11. *Swastyayana* : Benidiction after presentation of offerings.
12. *Pranipaata* : Falling prostrate on the ground as a symbol of humility and self-surrender.
13. *Yaatraagamana* : Visiting sacred places of pilgrimage in order to direct the attention of the patient towards pious thinking and also to promote the influence of the change of climate, change of scenery and of physical exercise. In fact, all places of pilgrimage in India are really health resorts with their beautiful scenery and pure water from springs or rivers for bathing and drinking. Now, of course they have degenerated on account of neglect and for want of patronage and to the glamour of western fashion.

The above methods of Daiva Vyapaasraya treatment are most effective in the case of those who believe in god and who have faith in these methods of cure. Even to-day there are numerous people of all religious faiths in India who resort to these methods and are greatly benefitted by it. This treatment gives Saanti-peace to the agitated mind. It sometimes effects miraculous cures not only in mental diseases such as hysteria and insanity but also in certain purely bodily diseases. All pain and suffering disappears by diverting the mind of the patient. It is no wonder that intense Bhakti (faith) creates new and powerful vitality which can cure even virulent organic disease such as leprosy, diabetes and consumption due to infection by microbes-See Charaka and Susruta in the treatment of different diseases.

The rituals and the Mantras (Sacred hymns) and the line of application differ for different diseases and thus, the science which deals with this method of treatment called the Mantra Sastra developed into a special science and art practised by specialists in that branch. Aayurvedic texts give frequent references to these methods of treatment. For example refer to Charaka-Chikitsa-VIII 181-183; Vimaana III-18-Vaagbhata-Chikitsa - XIX - 98; Susruta, Chikitsa - XI - 12 and so on. Modern medical students have to take up this subject for special research. Many text-books are available in *Mantra Sastra* in Sanskrit which I had not the capacity nor the opportunity to study.

When the *Aavesa* - (deep and devoted absorption of the mind) generated by *Bhakti* (faith) - is enough to prevent the blazing fire from scorching the human skin, what more can it not do? The same faith may alter the structure and functions of muscles, tissues, cells and secretions in the human body and may relieve any pain and also cure any disease in a way that modern science cannot explain at present. The *Mantras* may transmit the healing powers through any distance, through the waves of ether or other unknown media. The radio and the research connected with the atom bomb may move the East and the West nearer to each other, although their paths may be different, the East following the spiritual path and the West the material path. True science is

not a rival of Aayurveda but a friend by making Aayurveda more easily explained and better understood.

These spiritual sciences are only intended to be taught to those who believe in them. Bhagavadgeeta emphatically says that this supremely secret science should be taught only to the devotees.

“Ya idam paramam guhyam
Madbhakteshu abhidhaasyati”

—Geeta XVIII-68.

Never is this to be spoken by thee to any one, who is without the spirit of sacrifice nor without devotion, nor to any one who desireth not to listen, nor yet to him who speaketh ill of God. Geeta XVIII-67. The science of Aayurveda which deals with this subject is also not intended for atheists and agonists.

“Tatra buddhimaan naastiky buddhim
Jahyaat, vichikitsaam cha”

—Charaka - Sutra XI-18.

A wise man should once for all banish atheistic attitude or any doubts regarding the existence of God if he wishes to be benefited by *Daivavyapaasraya* treatment.

Yuktivyapaasraya.

2. *Yuktivyapaasraya*: treatment which depends upon reasoning out the causes of diseases and on devising suitable ways and means for its cure. It deals with appropriate administration of food and medicines and their combinations.

“Aahaara - Aushadha - Dravyaa -
naam - Yojanaa”

—Charaka - Sutra XI-62.

This includes all the modern medical treatment and the examination of the patient with the aid of instruments and laboratory appliances. All physical, ethical and moral treatment is included in this class. All that we now do in modern medicine comes under this head.

Sattwaavajaya Treatment.

Sattwaavajaya treatment consists of controlling the states or the modes of mind (Chitta Vritti) and their modifications.

“Ahitebhyo arthebhyo
Manonigraha”

—Charaka Sutra XI 63

This involves the detachment of the mind from unsuitable influences when the mind is in contact with the senses. The mind should be trained by constant practice (*Abhyaasa*) to develop dispassion or detachment (*Vairaagya*) from all evil habits and thoughts. The influence of *Rajas* and *Tamas* should be suppressed and the influence of *Sattwa* should be gradually developed. All kinds of vanity must be rooted out and self-denial and self-control must reign supreme. The *Indriyas* are very mischievous and are extremely difficult to control inspite of all efforts.

“Yatatohyapi kounteya
Purushasya vipaschitah
Indriyaani pramaadheeni
Haranti prasabham Maanah
Taani Sarvaani Samyamya
Yukta Aseeta Matparah”

—Geeta II 60, 61

The senses are very strong; they lead astray even the mind of scholars. Therefore, having controlled all of them, devote yourself steadfastly to me.

“Asamsayam mahaabhaaho
Mano durnigraham chalam
Abhyaasena tu kounteya
Vairaagyena cha grihyate”

—Geeta VI-35

This fickle mind which is difficult to control will surely be curbed by constant practice of detachment (*Vairaagya*).

Satwaavajaya treatment is withdrawal of the mind from uncongenial objects or desires (Sutra XI-62). Once this is done all suffering and pain will disappear.

Satwaavajaya—Control of self is both preventive and curative treatment—See Hathayoga and *Bhaktiyoga*—"Philosophical Background" by the author.

Dosha Pratyaneeka Chikitsaa.

We have stated above that in certain cases the treatment should be directed against the alleviation of Doshas and in certain others directly towards the alleviation of the specific disease or symptom complex with drugs which have a specific action—*Prabhaava* and in others with both methods. In the following paragraphs, we have given a summary of the line of treatment indicated for the vitiation of the three Doshas.

Sneha and Sweda Karmaas.

Although the text-books mention massage exercises and various kinds of baths, the general practitioner bestows no attention to them, because he finds that medicines are more handy and also because these processes require greater personal attention. These valuable aids to treatment which really follow nature's methods of cure and which, sometimes are more efficacious in the long run, have now gone into disuse. If they are once popularised and practised systematically, they are sure to be a boon to suffering humanity. Further, they are less risky than many drugs and injections.

I shall make an attempt to classify the types of massage including *Sneha* (lubrication) and *Sweda Karma* (Sweating), *Vyaayamam* (exertion), *Viraama* (rest) and baths etc., which should be used according to the different types of diseases and in the various stages of each disease.

The massagist should, by keen observation consider the various circumstances, relating to the normal and abnormal states of the tissues considering (1) the age, (2) strength, (3) temperament or constitutional tendencies, (4) the country, (5) the area of the

body affected, (6) the climate, (7) the season, (8) the time of the day or night, (9) the food used by the patient and (10) the exact stage or the normal, excited or decreased condition of *Vaata*, *Pitta* and *Kapha*.

The general instructions relating to the suitability or otherwise of *Vyaayamam* are also useful in the case of massage. The object of both is generally to regulate circulation and to produce a healthy recuperation in the tissues of the body.

IX

TREATMENT OF DISEASES OF THE VAATA TYPE

1. Dryness; 2. Lightness; 3. Transparency (*Visada*); 4. Coldness; 5. Motion; 6. Subtleness (*Sukshma*)—These are the properties of *Vaayu* in the normal state. The system of massage or anything in the form of food, medicine, climate or habits, which have the above properties, increase *Vaayu*. The treatment should then be the application of agents which have the opposite properties. The following processes are recommended in diseases of the *Vaata* type.

1. *Sneha* : Lubrication - application of *Vaatahara i. e.*, *Vaata* reducing oils - Charaka Sutra Chap. 13.
2. *Sweda* : Sweating, 10 methods of sweating do not require the aid of heat and 13 methods require the aid of heat. See Charaka Sutra Chap. 14.
3. *Pradeha* : application of ointments, poultices, and dusting powders which should be heating or relieving pain.
4. *Vimardana* : or *Unmardana* - Hard massage.
5. *Parisheka* : Hot sponging, spraying and shower baths.
6. *Upaanaaha* : Fomentations comfortably hot.
7. *Upaveshtana* : Tight bandaging.
8. *Avagaaha* : plunging in hot water or in heat producing decoctions.

9. *Samvaahana* : Light pressing, if pain is present and is relieved by the same.
10. *Avapeedana* : Light kneading if painful.
11. *Vithraasana* : Threatening.
12. *Vismapana* : Surprising.
13. *Vismarana* : Diverting the patient's mind.
14. *Vasti* : Enema - the most important of all in the treatment of Vaata diseases.
15. *Nasya* : Nasal purge.
16. Good nutritive food, which is sweet, slightly acid, slightly salted and containing ghee, oil or fat and hot to touch; and such other processes as are generally comfortable to the patient. The massage is to be light or hard according to the condition and comfort of the patient.

Charaka - Vimaana - Ch. VI, V-14.

X

TREATMENT OF DISEASES OF THE PITTA TYPE

In diseases of Pitta type where heat, acuteness, slight viscosity, colour other than white and *Aruna*, smell of raw meat, bitter or sour taste, burning sensation or giddiness are predominant symptoms, the following methods are more commonly used :—

1. *Sneha* : Lubrication with Pitta-reducing cooling oil (Note-*Sweda*-sweating is not mentioned. Sweating above the normal is one of the symptoms of Pitta disease) The use of ghee internally and externally, medicated or otherwise.
2. *Pradeha* : Poultices or ointments and dusting powders which should be cooling and relieving burning sensation.
3. *Parisheka* : Shower baths and cold compresses.
4. *Abhyanga* : oil baths.
5. *Avagaaha* : plunge baths in cool waters,

6. *Virechana* : purgative - The most important in reducing Pitta.
7. *Aahaara* : food which is astringent, sweet, bitter and cooling.
8. *Harmya Vaasah* : Living upstairs freely exposed to cool breezes and rays of the Moon or spending moon-light nights, on river sands etc., *Seeta Gandhohaseva* - Enjoying cool and sweet scents.
9. *Parama Sisira Muktaa Mani Dhaaranam* : Wearing over the chest and other parts of the body, very cool garments, cooled, pearls and gems or iced compresses or cooled pearls or cooled wet sheets.
10. *Geeta Vaaditraanaam Sravanam* : Vocal and instrumental music.
11. *Udyaanavanaseva* : Excursions in pleasure gardens.
12. *Suhrut - Samyogam* : Meeting friends;

And such other processes as are pleasing and cooling to the patient.

Charaka-Vimaana-Chap. 6.

XI

TREATMENT OF DISEASES OF THE KAPHA TYPE

In diseases of the Kapha type where coldness, heaviness, stoutness, dullness and oiliness, whiteness, smoothness, itching chronic nature and sweet taste are generally noticed, the following processes are recommended.

1. *Swedana* : Sweating - note *Sneha* (lubrication) is not mentioned. Excessive lubrication of the body is one of the symptoms of Kapha disease.
2. *Unmardana* : Hard massage.
3. *Udvartana* : Rubbing scented paste and rolling it into wicks. This cleans the skin and promotes circulation.
4. *Udgharshana* : Rubbing roughly and briskly in short strokes.

5. *Utsaadana* : Rubbing upwards with deep pressure and in long strokes, opposite to the direction of the hair (Pratiloma).
6. *Dhaavana* : Running.
7. *Langhana* : Skipping or jumping.
8. *Plavana* : Swimming.
9. *Parisaarana* : Running round in a circle.
10. *Jaagarana* : Keeping awake at nights.
11. *Niyuddha* : Wrestling.
12. *Vyaayaama* : Systematic physical exercise.
13. *Vyavaaya* : Sexual life.
14. *Snaana* : Baths.
15. *Pranipaata* : Making namaskaaras by kneeling or falling prostrate on the ground. This effect is apart from the spiritual value due to devotion and faith.
16. *Taatraagamanam* : Excursions to places of pilgrimage.
17. *Nasyakarma* : Nasal purgative.
18. *Vamana* : Emetic - most effective of all in the treatment of Kapha diseases.
19. *Upavaasa* : Starvation or fasting.
20. *Aahaara* : food - which is bitter, astringent and pungent, without much ghee or oil and generally heating.

And such other processes as are antagonistic to easy and comfortable living.

XII

IMPORTANT DRUGS

As regards the line of treatment of special diseases by drugs possessing specific action like *Tuvaraka* and *Khadira* in *Kushta*, *Guggulu* in rheumatism, *Silaaajit* in *Prameha* the reader is referred to Chapters on individual diseases.

However the following slokas summarising the specific action of drugs in different diseases deserve a careful study.

“*Mustaaparpatakam jware, trishi jalam*
Mridbhrishtaloshtodbhavam,
Laajaaschardishu, vastijeshu girijam,
Meheshu dhaatreenise,
Paandou sreshtam ayo, abhayaa anilakaphe,
Plechaamaye pippalee,
Sandhaane krimijaa, vishe sukatarur,
Medo anile gugguluh.
Vrisho asrapitte, kutajo atisaare
Bhallaatako arsassu, gareshu hema
Sthuleshu taarkshyam, krimishu krimighnam
Soshe suraa cchaagapayo adha mamsam
Akshyaamayeshu thriphalaa, gudoochee
Vaataasraroge, madhitam grahanyaam,
Kushteshu sevyah khadirasya saarah,
Sarveshu rogeshu silaahvayam cha.
Unmaadam ghritamanavam, sokam
Madyam, vyapasmritim braahmee,
Nidraanaasam ksheeram jayati,
Rasaalaa pratisyaayam,
Maamsam kaarsyam, lasunah
Prabhanjanam, sthabthagaaatrataam swedah,
Gudamanjaryaa khapuro nasyaat
Skhandhaamsabaahurujam,
Navaneetakhandamarditam oushtram
Mootram payascha hanti udaram,
Nasyam moordhavikaaraan, vidradhim
achirotham asravisraavah
Nasyam kavalo mukhajaan. Nasyaanjana-
tarpanaani netrarujah,

Vridhatwam ksheeraghrate, moorchaam
 Seetaambumaarutachchaayaah,
 Samasuktaardrakamaatraa mande vanhou,
 Srame suraa, snaanam,
 Dukhasahatwe sthairye vyaayaamo
 Gokshuruh hitah krichre,
 Kaase nidigdhikaa, paarswasoole
 Pushkarajaa jataa,
 Vayasah sthaapane dhaatree,
 Thriphalaa gugguluh vrane,
 Vastir vaatavikaaraan,
 Paittaaan reka, kaphodbhavaan vamanam,
 Kshowdram jayati balaasam,
 Sarpah pittam, sameeranam tailam,
 Iti agryam yat proktam rogaanaam
 Oushadham samaaya alam.
 Thath desa kaala balatho
 Vikalpaneeyam yadhaayogam

—Vaagbhata Uttaraasthaanam Chap. 40. V 48-58.

Musta and Parpataka are the best drugs in Jwara (fever); Water boiled along with fine earth and heated stones is most useful in Trishna (thirst); Laaja (Popped rice) is most useful in Chardi (vomiting); Silaajat is the best drug in affections of Vasti (bladder); Aamalaki and Haridraa are best in Pramehaas; Iron (dust or Bhasma) is best in Paandu (anemia); Hareetaki is the best drug in Vaata-Kapha affections; Pippalee is the best drug in Pleehaamaya (disease of spleen); Laakshaa is the best drug for Sandhaana i.e., to affect union or to join or to heal; Sireesha is the best drug in poison; Guggulu is the best drug in Vaayu surrounded by Medas; Vaasaa is the best drug in Raktapitta (haemorrhages); Kutaja is the best drug in Atisaara (diarrhoea); Bhallaatika is the best drug in Arsas (piles); gold is the best drug in Gara (mild poison introduced through the food or autointoxi-

cation or toxæmia) Taarkshya (Rasaanjanam) is the best drug in Sthoulya; Krimighna (Vidanga) is the best drug for worms; Suraa, goat's milk and goat's flesh are most useful in Sosha (consumption);

Thriphalaa is the best drug in diseases of the eye; Gudoochee is the best drug in Vaatarakta; buttermilk is the best drug in Grahanee (Lienteric diarrhoea); Khadira Saara is the best drug in Kushta (leprosy etc.); Silaajatu (Gomootra silaajit) is most useful in many diseases; old ghee is very useful in Unmaada (insanity); Madya (alcohol) is very useful in Soka (grief); Braahmi is the best drug in Apasmaara (epilepsy); milk is most useful in Nidraanaasa (insomnia); Rasaala (a preparation with curd) is most useful in Pratisyaaya (nasal catarrh).

Maamsa (flesh) is best in Kaarsya (emaciation); Lasuna (garlic) is best in Vaata diseases; Sweda Karma (sweating) is best in the rigidity of limbs. The resin of black Saalmali is very useful as Nasya in relieving pains in shoulders and arms; butter and sugar candy is very useful in Ardita (facial palsy); The urine and milk of camel is very useful in Udara (Abdominal diseases - Ascites, distention or peritonitis or hardness of abdomen etc); Nasya (Nasal purge) is very useful in affections of head; Raktamokshana is very useful in Vidradhi (abscess) of recent origin; Nasya and Kavala are useful in diseases of mouth; Nasya, Anjana and Tarpana are useful in diseases of eye; milk and ghee are useful in preventing (and curing) old age; cold water, cool air, cool shade are useful in Moorcha (syncope).

Fresh ginger given with Suktam (a preparation akin to weak-alcohol) is very useful in slow digestion (*Mandaagni*); Suraa (wines) and bath are useful in relieving fatigue; Vyaayaama (physical exercise) is very useful in promoting the power of endurance (*Dukha Sahatwa*) and grit (*Sthairye*); Gokshura is very useful in Mootrakrichra (Painful urination); Kantakaari is useful in cough (*kaasa*) Pushkafajata is useful in Paarswasoola (pain in side); Aamalaki is useful as a Rasaayana; Thriphala and Guggulu are useful in Vrana (ulcers).

Vasti is useful in Vaata diseases.

Virechana is useful in Pitta diseases.

Vamana is useful in Kapha diseases.

Honey is useful in Kapha diseases.

Ghee is useful in Pitta diseases.

Oil (gingelly) is useful in Vaata diseases.

The above are some of the important drugs and processes used to ameliorate certain diseases; They may be used as altered or mixed or modified in various ways in those diseases according to Desa (country), Kaala (season) and Bala (strength). Here lies the skill of the physician.

XIII

SUMMARY

Summarising the system of Aayurvedic treatment, it may be said that the whole procedure may be compressed in one sentence, which may run as follows :

Aayurvedic treatment consist of—

1. Purging out the offending agents.
2. Soothing the injured body.
3. Removing the cause or causes of ill-health, in all diseases according to circumstances.

“Samsodhanam samsamanam

Nidaanasya cha varjanam

Etaavat bhishaja kaaryam

Roge roge yadhaa vidhi”

—Charaka-Vimana-Ch. 7-v-34

For attaining these objectives, there are, firstly, Medical and Surgical treatments. Secondly, there are six Upakarmaas—six courses and five karmaas or five lines of action. The six Upakarmaas are :

1. *Brimhanam* : (Promoting growth).
2. *Langhanam* : (Effecting reduction).

3. *Snehanam* : (Lubrication).

4. *Rookshanam* : (Removing fat or drying).

5. *Swedanam* : (Promoting sweating).

6. *Sthambhanam* : (Promoting contraction of all channels).

The five actions or operations called Pancha Karmaas are :

1. *Vomiting* : Vamana.

2. *Purging* : Virechana.

3. *Enema* : Vasti Karma.

4. *Cleaning by nasal rout* : Siro-Virechana.

5. *Blood letting* : Rakta Mokshana.

Some authors divide enema into 2 kinds.

1. *Anuvaasana Vasthi* : Enema with lubricating agents.

2. *Niroohana Vasti* : Enema with cleaning decoctions.

and substituted blood letting by one of them.

These Pancha Karmas constitute the methods of purging or purification of the offending agent (Sodhana Karma).

Before Pancha Karmaas are undertaken, a preliminary course of Snehanam (lubrication), and Swedanam (sweating) are reported to as a rule in order to separate the debris or Mala from the healthy tissues before they are purged out.

Samana Karmaas or soothing processes are classified into ten.

1. Restraining thirst (*Tristna Nigraha*).

2. Exposure to air (*Maaruta*).

3. Exposure to sun (*Aatapa*).

4. Administering carminatives (*Deephana*).

5. Administering digestives (*Paachana*).

6. Starvation (*Upavaasa*).

7. Physical exertion (*Vyaayaama*).

8. Unmardanam (*Hard massage*).

All the above processes may be brought under 3 heads described in Ch. 12, namely 1. Antahparimarjanam (internal purifica-

tion), 2. Bahia Parimaarjanam (External purification), and 3. Sastra Pranidhanam—(surgical operations).

All these courses and operations will be described in detail in the succeeding Chapters. Although the ways and means of attaining the desired object may be slightly different considered generally, the system of Aayurvedic treatment is similar to the modern medical treatment now, followed all over the world. This is to help nature to remove the injurious substances whether they consist of visible microbes, invisible viruses or subtle mental disturbances such as emotions and secondly to soothe the injured body after getting rid of the offending material or immaterial substances.

Thus, Aayurveda includes Daiva Vyapaasrayam and Sathvaavajayam which are of the nature of the spiritual training of individuals in its wide field of treatment and thus only it differs from modern medical treatment. An Aayurvedic physician combines in himself the role of a social adviser and a Missionary priest.



CHAPTER IV

Rasaah taavat shat madhuraamla
Lavana katutiktakashaayaah,
Te samyak upayujyamaanaah
Sarceraam yapayanti,
Mithyopayujayamaanaastu
Khalu doshaprakopanaaya upakalpayanti.

There are six tastes in all the eatable substances. The six tastes are Madhura (sweet), Amla (sour), Lavana (salt), Tikta (bitter), Katu (pungent) and Kashaaya (astringent). If these Rasaas *i. e.*, substances containing these Rasaas are properly used, they go to nourish the body keeping it in health. If, on the other hand, they are improperly used they tend to vitiate the Doshaas causing various diseases.

—Charaka Vimana-Ch. 1, L 4.

The human body is composed of Pancha Bhootaas and Aatmaa, and the Shad Rasaas are also made up of Panchabhootaas. The Panchabhoota Siddhaanta postulates five states of matter corresponding to the five sense organs. They are as follows.—

(1) The Prithvee or solid state, (2) the Aap or liquid state, (3) the Tejas or heat and light state, (4) the Vaayu or the gaseous state and (5) Aakaasaa or the ether state.

The Prithvee state.

The Prithvee state corresponds to the solid state. It is described as heavy, rough, hard, slow, steady, clear, thick and

gross. Its special property is that it can be perceived by all the five senses including smell, whereas the other Bhootaas or states cannot be perceived by the organ of smell. If you find some smell in certain liquids and gases, this smell is due to minute particles of Prithvee combined in the liquid or gas. Being heavy, the tendency of the Prithvee Bhoota is always to go downwards.

Aap state.

II. The Aap state corresponds to the liquid state. Its distinguishing properties are heaviness, viscosity, fluidity and taste, the last of which is its special property. Being heavy, the tendency of Aap is also to go downwards.

All substances, which predominantly consist of Prithvee and Aap, have therefore a tendency to move downwards. This property of relative heaviness is used in classifying drugs as those having a tendency to move downwards and those which have a tendency to move upwards. Whereas those drugs which predominantly consist of Tejas and Vaayu have a tendency to move upwards, those which predominantly consist of Prithvee and Aap state have a tendency to move downwards. For example, purgatives are predominantly made up of Prithvee and Aap Dravyaas. We say predominantly because in every Dravya, there are all the Panchabhootaas in different proportions. It is only the predominance of the one or the other that determines their classification.

The Agni state.

III. The Agni state (Tejas) corresponds to the state of heat and light. It has colour as its special property. It also possesses the property of exciting the sensations of touch and sound. Agni has a tendency to move upwards: compare the following quotation.

Sa (rasah) sabdaarchir jala santaana -
vat, anunaa viseshena upadhaavatyevam
Sareeram kevalam

Sushruta Sutra - 14-16.

Rasa Dhaatu in the body circulates through its entire area in minute particles like Sabda which spreads in all directions, like

Agni which spreads upwards and like water which spreads downwards.

Vaayu state.

IV. The Vaayu state corresponds to the gaseous state and although it may sometimes be perceived by the sense of sound also, it is comprehended primarily by the sense of touch and it has the properties of lightness and diffusibility. Vaayu therefore expands in all directions i.e., upwards, downwards and sideways.

Aakaasa state.

V. The Aakaasa state, corresponds to the extremely subtle etherial state. It is omnipresent and therefore penetrates everywhere and has a special property of being perceived by the ear through the waves of sound, that it carries.

Although these five elements are described above separately, they always exist in combination, in different proportions. They are therefore called Pancha Maha Bhootaas. The predominance of one or more of the Bhootaas or elements makes up different substances which exist in the universe. The different names and shapes (Naama and Roopa) which each possesses are due to their peculiar combinations of the five Bhootaas. These five Maha Bhootaas are responsible by their combinations for the evolution of six kinds of Dravyaas which predominantly possess six tastes as their Gunaas.

The six Rasaas.

1. Prithvee and Aap make up Dravyaas which predominantly possess, the Mathura (sweet) taste.
2. Prithvee and Tejas make up Dravyaas (substances) which predominantly possess Amla taste (i.e., sour taste).
3. Aap and Tejas make up Dravyaas (substances) which predominantly possess the Lavana (saltish) taste.
4. Vaayu and Aakaasa make up Dravyaas (substances) which predominantly possess the Tikta (bitter) taste.

5. Agni and Vaayu make up Dravyaas which predominantly possess the Katu (pungent) taste.

6. Prithvee and Aakaasa make up Dravyaas which predominantly possess, the Kashaaya (astringent) taste.

A question may now be asked as to why only six Rasaas have been produced and why the remaining combinations of Bhootaas do not produce any other Rasa. It is said that because there are only 6 Ritus (seasons) in nature, there are only six Rasaas, one Rasa being predominantly developed in one season.

This seasonal rotation is again due to the journey of the Sun from one equinox to another and back to the same position annually in a cycle. The movement of the earth round the Sun is therefore directly or indirectly responsible for the development of the six seasons and six Rasaas.

1. Mathura Rasa generally develops to its best in Hemanta Ritu.
2. Amla Rasa generally develops to its best in Varsha Ritu.
3. Lavana Rasa generally develops to its best in Sarad Ritu.
4. Tikta Rasa generally develops to its best in Sisira Ritu.
5. Katu Rasa generally develops to its best in Greeshma Ritu.
6. Kashaaya Rasa generally develops to its best in Vasanta Ritu.

This hypothesis corresponds to the actual observations made in this country. For example, chillies grow best in summer and almost all sweet and nourishing substances such as food grains are provided with their sweetness in abundance by nature in cold season. It may be said however that man has also created seasons artificially by providing water, light and shade to plants and thereby the tastes of substances are made artificially to vary in different seasons. (Shadritukatwaatcha, Kaalasya Upapanno Mahaa-bhootaanaam Onaatireka Viseshah —Charaka Sutra-Ch.26-L-38). Therefore, the above general rule of particular seasons is to develop only particular tastes.

As Mathura Rasa is made up predominantly of Prithvee and Aap, both of which are heavy substances, it is Bhrimhana i.e., it promotes growth. It gives strength to the body, whereas other Rasaas do relatively less so.

For these reasons, the properties of substances having different tastes are described individually as follows.

Mathura Rasa - Identification.

Mathura Rasa is identified by the following physiological reactions. When Madhura Rasa comes into contact with the mouth, it is endearing and it causes immediately a feeling of happiness (*Preethi, Ahlaada*). The mouth is lubricated as it were and there is a feeling as if the mouth is covered over with a sticky substance. When these reactions are noticed, we consider that the substance has Mathura (sweet) taste.

Properties of Mathura Rasa.

As the system is habituated to Mathura Rasa from birth by the use of milk, which has Mathura taste, substances having Mathura Rasa are easily assimilated in the body. On account of this easy assimilation, Madhura Rasa promotes the growth of all the tissues—Rasa - Rakta - Maamsa - Medas - Asthi - Majja - and Sukra Dhaatus and also of Ojas. It promotes long life. It pleases and clarifies the five senses and also the mind. It gives strength and complexion to the skin. Mathura Rasa checks Pitta and Vaata and acts as an antidote to toxins (*Vishaghna*). It relieves thirst. It is soothing to the skin. It promotes the growth of hair. It improves voice and is generally exhilarating. It is particularly useful in rejuvenating the injured and the debilitated. It is generally lubricating, cooling and heavy. If the same Mathura Rasa is used in excess, it causes stoutness, too much of softness, laziness, excess of sleep, hard breathing, and cough and it also promotes the advent of diseases such as glandular enlargements, elephantiasis and diseases in which Kapha predominates - (diabetes etc.)

Amla Rasa - Identification and Properties.

Amla Rasa is identified by the following physiological reactions.

When Amla Rasa comes into contact with the mouth, it causes profuse secretion in the mouth and also causes extreme sensitiveness of the teeth (*Dantaharsha*). It improves appetite (*Sraddha*). If this Rasa (*i.e.*, substance having this Rasa) is taken in moderation, it promotes appetite, nourishes the body as well and stimulates the mind (*Mano bodhayati*). It causes stability of the Indriyaas, causes satisfaction, corrects Vaata by promoting its normal direction (*Vaatam Anulomayati*). It lubricates and digests the food; it is light, heating and oily. But, if it is taken in excess, it increases Pitta, vitiates blood and causes Paaka of Maamsa and of any wounds or ulcers in the body. It spoils the compactness of the body, causes oedema and burning sensation of throat, chest and Hridaya (Charaka).

Identification of Lavana Rasa and its properties.

When Lavana Rasa comes into contact with the mouth it creates taste and appetite for the food; it causes secretion of Kapha in the mouth. It digests the food. It clears off the obstruction in the passages and corrects Vaata. It is very acute and penetrating, causes softness to the limbs, enters essentially into the food (*Aaharayogee*), is heat-producing and is oily; but if it is taken in excess, it vitiates Pitta and causes thirst and burning sensation, tears the Maamsa and other tissues, causes secretion in Kushta. It increases the action of poisons (*Visham Vardhayati*). It causes breaking up of inflammations. It causes looseness of the teeth. It decreases virility. It checks the proper functioning of the Indriyaas. It causes grey hairs, alopecia, shivelling of the skin, hæmorrhages, erysipelas, and various eruptions on the skin.

Identification and properties of Katu Rasa (Pungent taste).

When Katu Rasa comes in contact with the mouth, it agitates the tip of the tongue, causes general affliction, constricts the head and causes secretion in the nose. Moderately taken Katu Rasa purifies the mouth, makes the appetite keen, dries up the food, causes secretion in the eyes and stimulates the Indriyaas. It counteracts the oiliness of the Kapha. It checks over-growth. It checks secretions and removes stickiness. It kills worms, scrapes

the flesh and shivels ulcers, breaks any obstructions and widens the Srotasses. But, if it is taken in excess, it destroys virile fluid, causes stupor, vertigo, burning in the throat and body, thirst and weakness. It may also cause Vaata diseases.

Identification and properties of Tikta Rasa (Bitter taste).

When bitter taste comes into contact with the mouth, it produces, a drawing (pulling) sensation in the throat (*Gale Chosham—Aakarshanam Utpadayati*). It removes grease of the mouth and causes horripilation. Though Tikta Rasa spoils the good taste of the tongue temporarily, it checks bad taste (*Arochaka—anorexia*). It reduces toxins (or poison) in the body (*Vishaghna*). It checks fever, worms and allays Kushta, itching of the skin and stupor (*Moorchha*); it purifies the breast milk, and causes stability of Twak and Mamsa. It is digestive and is Rooksha (dry), Laghu (light). It dries up Kleda (watery content oozing from any part of the body), Medas (fat), Vassa (oily content of Maamsa), Majja (marrow), Laseeka (watery content in the skin), Pooya (pus), Sweda (sweat), Mootra (urine), and Pureesha (fæces). Though it is endowed with such valuable properties, if taken in excess, it dries up Rasa, Rakta, Maamsa, Medas, Majja and Sukra Dhaatus, causes roughness (*Kharatvam*) in the Srotasses. It reduces strength, dries up the man in general and causes fatigue. It promotes Vaata diseases.

Identification and properties of Kashaaya Rasa.

Kashaaya Rasa - astringent taste - dries up the mouth, stiffens the tongue, ties up the throat as it were (*Kanatham badhnaath*), pulls and contracts the heart (*Hridayam Peedayati*); It causes a feeling of oppression in the chest (*Hridayam Karshati and Peedayati Cha*).

When Kashaaya Rasa, is moderately and properly used, it dries up and arrests secretions, allays vitiated Kapha, Rakta and Pitta. It is Rooksha (dry), cooling (*Seeta*) and Guru (heavy). It absorbs the fluid content of the body (*Sareera Kledasya Upayokta*). It is also Peedana, *i.e.*, causes constriction of the parts as in certain abscesses, growths etc., and bursts them by causing cons-

When Amla Rasa comes into contact with the mouth, it causes profuse secretion in the mouth and also causes extreme sensitiveness of the teeth (*Dantaharsha*). It improves appetite (*Sraddhaa*). If this Rasa (*i.e.*, substance having this Rasa) is taken in moderation, it promotes appetite, nourishes the body as well and stimulates the mind (*Mano bodhayati*). It causes stability of the Indriyaas, causes satisfaction, corrects Vaata by promoting its normal direction (*Vaatam Anulomayati*). It lubricates and digests the food; it is light, heating and oily. But, if it is taken in excess, it increases Pitta, vitiates blood and causes Paaka of Maamsa and of any wounds or ulcers in the body. It spoils the compactness of the body, causes oedema and burning sensation of throat, chest and Hridaya (Charaka).

Identification of Lavana Rasa and its properties.

When Lavana Rasa comes into contact with the mouth it creates taste and appetite for the food; it causes secretion of Kapha in the mouth. It digests the food. It clears off the obstruction in the passages and corrects Vaata. It is very acute and penetrating, causes softness to the limbs, enters essentially into the food (*Aaharayogee*), is heat-producing and is oily; but if it is taken in excess, it vitiates Pitta and causes thirst and burning sensation, tears the Maamsa and other tissues, causes secretion in Kushta. It increases the action of poisons (*Visham Vardhayati*). It causes breaking up of inflammations. It causes looseness of the teeth. It decreases virility. It checks the proper functioning of the Indriyaas. It causes grey hairs, alopecia, shivelling of the skin, hæmorrhages, erysipelas, and various eruptions on the skin.

Identification and properties of Katu Rasa (Pungent taste).

When Katu Rasa comes in contact with the mouth, it agitates the tip of the tongue, causes general affliction, constricts the head and causes secretion in the nose. Moderately taken Katu Rasa purifies the mouth, makes the appetite keen, dries up the food, causes secretion in the eyes and stimulates the Indriyaas. It counteracts the oiliness of the Kapha. It checks over-growth. It checks secretions and removes stickiness. It kills worms, scrapes

the flesh and shivels ulcers, breaks any obstructions and widens the Srotasses. But, if it is taken in excess, it destroys virile fluid, causes stupor, vertigo, burning in the throat and body, thirst and weakness. It may also cause Vaata diseases.

Identification and properties of Tikta Rasa (Bitter taste).

When bitter taste comes into contact with the mouth, it produces, a drawing (pulling) sensation in the throat (*Gale Chosham—Aakarshanam Utpadayati*). It removes grease of the mouth and causes horripilation. Though Tikta Rasa spoils the good taste of the tongue temporarily, it checks bad taste (*Arochaka—anorexia*). It reduces toxins (or poison) in the body (*Vishaghna*). It checks fever, worms and allays Kushta, itching of the skin and stupor (*Moorcha*); it purifies the breast milk, and causes stability of Twak and Mamsa. It is digestive and is Rooksha (dry), Laghu (light). It dries up Kleda (watery content oozing from any part of the body), Medas (fat), Vassa (oily content of Maamsa), Majja (marrow), Laseeka (watery content in the skin), Pooya (pus), Sweda (sweat), Mootra (urine), and Pureesha (æces). Though it is endowed with such valuable properties, if taken in excess, it dries up Rasa, Rakta, Maamsa, Medas, Majja and Sukra Dhaatus, causes roughness (*Kharatvam*) in the Srotasses. It reduces strength, dries up the man in general and causes fatigue. It promotes Vaata diseases.

Identification and properties of Kashaaya Rasa.

Kashaaya Rasa - astringent taste - dries up the mouth, stiffens the tongue, ties up the throat as it were (*Kantham badhnaath*), pulls and contracts the heart (*Hridayam Peedayati*); It causes a feeling of oppression in the chest (*Hridayam Karshati and Peedayati Cha*).

When Kashaaya Rasa, is moderately and properly used, it dries up and arrests secretions, allays vitiated Kapha, Rakta and Pitta. It is Rooksha (dry), cooling (*Seeta*) and Guru (heavy). It absorbs the fluid content of the body (*Sareera Kledasya Upayokta*). It is also Peedana, *i.e.*, causes constriction of the parts as in certain abscesses, growths etc., and bursts them by causing cons-

triction and pressure on them. If this Rasa is used in excess it dries up the mouth, causes pain of the heart, and distension of abdomen. It causes obstruction in the Srotasses and blackens the body (Syaavatwam Aapaadayati - compare tannic acid of galls). It reduces the virile fluid, and causes Vaata diseases like Ardita, Apataanaka, Pakshavatha etc.

Relationship of Doshaas to Rasaas.

As regards the relationship of the Rasaas to Doshaas, Madhura, Amla and Lavana Rasaas control Vaata; Kashaaya, Tikta and Madhura check Pitta; Katu, Tikta and Kashaayas check Kapha - Charaka - Vimaana - Ch. I. L. 6 and Vaagbhata Sootra - Ch. I. V. 15.

Here it may be of interest to know how the relationship of the Rasaas and Doshaas is derived through their Gunaas. Vaayu is endowed with the properties of coldness, dryness, lightness, clearness (Vaisadya) and tendency to cause obstruction (Vaishtambhya). Kashaaya Rasa has also got the same properties (Sushruta Sutra Ch. 42 - L. 7). By the Sootra 'Vridddhih Samaanaih Sarvesham', i.e., like properties increase when added to each other and consequently Kashaaya Rasa increases Vaayu. It is to be remembered here that there is no exact similarity between the properties of Vaayu and Kashaaya Rasa, although generally a Dravya with Kashaaya Rasa increases Vaata and decreases Kapha and Pitta. The property of Vishtambha (obstruction) is ascribed not only to vitiated Vaata but also to vitiated Kapha. The tendency of vitiated Kapha is to congeal itself and solidify in the Srotasses thereby causing obstruction. Whereas the tendency of Vaata is to expand indefinitely and to cause pressure in all directions and thereby cause obstruction. The underlying Guna causing such obstruction, namely, Sthira Guna, strictly belongs to Kapha and not to Vaata, because Vaayu has essentially Rooksha, Laghu and Visaada properties. The difference in the two kinds of obstruction caused by Vaata and Kapha should be noted.

These properties are also present in Kashaaya Rasa and it is therefore generalised that Kashaaya Rasa increases Vaayu. How-

ever, the presence of Sthira Guna in Kashaaya Rasa (due to preponderance of Prithvee element in it) and the absence of that Guna in Vaata (it has 'Chala' Guna).

It explains the difference in the action of Kashaaya Rasa and Vaata. Thus, when it is said that Vaayu is increased by Kashaaya Rasa, it is called Samaanayoni - (Sushruta-Sutra Ch. 42-L. 7).

Likewise, Pitta has the properties of Oushnya (heat), Teekshnaya (acuteness), Roukshya (dryness-according to Sushruta).† A little Sneha (Sasnehatwa) is mentioned as a property belonging to Pitta by Charaka. Here there is no contradiction. Both Roukshya (dryness) and a little Sneha may exist in Pitta according to different states of Pitta. When Pitta is in the finer state of matter, Roukshya may exist but when Pitta is in a gross form, Sneha (Drawatva) may be present.

The qualities of Sasnehatwa and Rookshatwa may be said to be relatively present in Pitta. As a matter of fact, Rookshatwa and Sasnehatwa are not the essential qualities of Pitta. The principal qualities of Pitta are Ushnatwa, Teekshnatwa and Laghutwa. These are very important as these essentially go to constitute Pitta. Katu Rasa also has almost the same properties and therefore it increases Pitta predominantly (note Katu Rasa increases Vaata also to a certain extent). According to Aayurveda such clear demarcations of the properties of matter are not possible because there are subtle and gross states of each of the Doshaas and because every substance consists of Panchabhootaas but in different proportions. The same matter varies to a certain extent when it is in a gross or subtle state (solid, liquid,

† Sushruta ascribes Roukshya to Pitta since this Roukshya belongs to Agnimahaabhoota of which Pitta is derived preponderantly. Compare Pitta in Unaani where it is described as hot and dry. Sushruta himself elsewhere describes Pitta as having Drava Guna.

Pittam teekshnam dravam pooti neelam
Peetam tathaivacha. —Sushruta Sutra - Ch. 21-V. 11.

Charaka also mentions Sasnehatwa as a property of Pitta.

Sasnehamushnam teekshnam cha dravam aamlam
Saram katu, viparethagunaih pittam dravyaih
Aasu prasaamyati. —Charaka Sootra - Ch. I-V-59.

radiant, gaseous etc.) or when it is located in different places and exists under different conditions. The principle is to be clearly understood that such things are not contradictions. The properties are determined by the degree of predominance of one or other of the Gunaas of the Dravyaas constituting them.

In the same way, Kapha has the properties of oiliness, heaviness, coldness, sliminess and sweetness (Madhurya Snehaa Gourava Saitya Paichchilyalakshanah - Sushruta - Sutra-42-V.7). Madhura Rasa has nearly the same properties; if this Rasa is moderately and properly taken the Sleshmadhaatu is augmented which means health and if it is taken in excess the Slesma Dosha is increased which means disease. So also, with regard to the other Doshaas and other Rasaas. The aim is that by taking these Rasaas (through substance having different Rasaas) the three Dhatus and the Sapta Dhaatus should be properly nourished. Any improper increase or decrease of one or more Doshaas and their vitiation is termed disease. It should therefore be understood that food plays a very important role in producing diseases; although, however, other factors such as unsuitable season, Prajnaaparaadha, injudicious use of the senses etc., have also their effects. The latter is the exception rather than the rule.

“Asita peeta khaadita
prabhavaascha asmin
Sareere vyaadhayo bhavanti—
na cha kevalam
hitaahaaropayogaadeva
sarvavyaidhibhayam atikraantam
bhavati; santi hi ritepi
ahitaahaaropayogaat anyaaah
Rogaprakritayah, tadyathaa
kaalaviparyayah
Prajnaaparaadhah, parinaamaascha,
sabda sparsa roopa
Rasa gandhaascha asaamyaaah”

(Charaka - Sut. Ch. 28—L. 35).

In short, six Rasaas, if properly used, go to nourish the body keeping it in health, whereas these very Rasaas improperly used go to vitiate the Doshaas causing various diseases. (Charaka Vimaana-Ch. I. L. 4).

Examples of Dravyaas containing six Rasaas.

Now, let us take some examples of foods containing these Rasaas to understand their relationship with the Dhaatus (or Doshaas).

Dravyaas having Madhura Rasaa - Milk, Ghee, Saali Rice, Shashtika Rice, Wheat, Black Gram, Draaksha, Kharjoora, Coconut etc.,

Dravyaas having Amla Rasa - Tamarind, Lemon (Lakucha), Sour curd, Aamalaka, Daadima etc.,

Dravyaas having Lavana Rasa - Saindhava Lavana, Common salt etc.,

Dravyaas having Katuka Rasa - Sunthi, Pippalee, Maricha, Tulasi, Lasuna, Chillies, Hingu etc.,

Dravyaas having Tikta Rasa - Nimba, Gudoochi, Haridraa, Kaaravella etc.,

Dravyaas having Kashaaya Rasa - Nyagrodha, Aswattha, Udumbara, Hareethaki, Areca nut etc.,

There are many drugs which contain not only one Rasa but many Rasaas in different proportions. For instance, cow's milk has predominantly one Rasa, namely Madhura; so also ripe Draaksha fruit. Hareetaki and Aamalaki have five Rasaas in their make up (having all Rasaas except Lavana). But, Kashaaya Rasa in Hareetaki and Amla Rasa in Aamalaki are most prominent. In Mudga, Kashaaya and Madhura exist (2 Rasaas) and Kashaaya Rasa is more prominent in it. The ancients developed a keen and delicate sense of perception and we may verify their statements if we can also develop that perception to a fine exactness. We may therefore take their statements as authoritative, where we are doubtful.

Similarly, Mudga (greengram) is a Pittahara substance as may be guessed from the two Rasaas, Madhura and Kashaaya which it contains. Tila (sesame seed), has four Rasaas, namely, Madhura, Tikta, Katuka and Kashaaya. The effects of this complicated substance on the system is therefore a complex one. While the presence of Madhura Rasa makes it eatable as a food substance, the presence of the other Rasaas have their own influence. Consequently this is described to be Guru (heavy), Snigdha (oily), and Vrishyaa (aphrodisiac). It checks Vaata and increases Pitta. Here in Tila, the complex qualities are tacitly taken from the authority of the texts. In Tila, Madhura is the chief Rasa and the other Rasaas are the Anurasaas (Dalhana). The Katu Rasa alone is not probably enough to justify the action of Tila in vitiating Pitta.

Vyakta Rasa and Anu Rasa.

Then again, we have to know what is meant by Vyakta Rasa and by Anurasa. If a dry substance such as dry Pippali is chewed, the Katu Rasa is manifest immediately. After further chewing, Madhura Rasa is also perceived. In the dry Pippali, Katu Rasa is the Vyakta Rasa and Madhura Rasa is the Anurasa. If fresh Pippalee nut is chewed it exhibits Madhura Rasa in the beginning and Katu Rasa later. In this case, Madhura Rasa is Vyakta Rasa and Katu Rasa is the Anurasa. But, when we speak of the Rasaa of Pippalee generally, the Katu Rasa pertaining to the dry Pippali is taken into account. Certain substances like Draaksha fruit are sweet when ripe or dry. Certain fluid substances such as Takra generally have Amla Rasa as Vyakta Rasa and Kashaaya or Madhura Rasa as Anurasa according to their state of preservation. It has already been stated that these Rasaas are Gunaas (Guna Padaarthahs. They are liable to changes according to Desa and Kaala. To illustrate this, let us take a concrete substance, say, a mango fruit. A raw mango taken just, from the tree may be very sour, hard and not at all palatable, *i. e.*, to say, it has Kashaaya and Amla Rasaas and Kathina Guna. We incubate the unripe mangoes in a thick bundle of dry straw kept in a closed room and free from winds. This bundle of straw is said to possess an Agni,

a Vijaateeya Tejas * and the raw mango is said to have acquired Samyoga Guna (proper combination) and the Gunaas of the Vijaateeya Tejas are transmitted to the mango, whose Gunass (Amla Rasa, Kathina Guna, green colour and Aamagandha) undergo changes gradually. The addition of the Desa (the closed room) and Kaala (the time factor) which are also Dravyaas according to Aayurveda, are responsible for changes in the properties (Gunaas) of the raw mango.

In about two or three days, the Amla Rasa of the raw mango is transformed into a palatable Madhura Rasa, the Kathina Guna (hardness of the nut) is transformed into Mridu Guna (softness), the green colour (Harita Roopa) is transformed into yellow colour and the Aama Gandha Guna is transformed into an agreeable ripe odour (Pakwagandha) and the substance so transformed is the palatable mango fruit. The transformation *i. e.*, the changing of the Gunaas is affected by the Agnis or the Vijaateeya Tejas (Bio-Chemical changes). The process of such transformation (ripening) is called Paaka.

Rasa Dosha Sannipaatha.

Rasadoshasannipaate tu ye rasaah yaih
Doshaih Samaanagunaah,
samaanagunabhooyishthaavaa
Te taan abhivardhayanti, vipareetagunaastu
vipareetagunabhooyishta vaa samayanti
Abhyasyamaanaah;

* Paako Naama Vijaateeya Tejassamyogah
Sacha naanaajaateeyah, Roopajanako Vijaateeyatejassamyoga
Stadapekshayaa Rasajanaka Vijaateeya
Saamyogah, Evam Gandhajanako Vijaateeya
Tejaassamyogah - Evam Sparsajanakopi Tathaiva
Evam prakaarena Bhinna Bhinnajaateeyaaah, Tathaahi,
Trinapunja nikshipte Aamraadou Ushnatwalakshana
Vijateeya tejassanyogaah Poorve harita roopa
Naase, Roopantaraasya Peetaropaadereva
Utpaatih — — Tasmaat Roopadijanakaa
Vijaateeyaaah Eva Paakaah Yathaakaaryam Unneyaah,
[Nyayaabodhini, — Commentary on Tarka Sangraha
Pratyaksha Parichcheda,]

Iti etatvyavasthaahetoh shattvam upadisyate
Rasaanam parasparena asamsrishtaanaam
Tritwam cha doshaanaam.

—Charaka Vimaana Ch. 1-L-7

When Rasaas come into contact (*i.e.*, mixed) with the Doshaas in the body, those Rasaas which possess similar properties of the Doshaas or preponderantly similar properties of the Doshaas, increase the Doshaas and those Rasaas which have antagonistic properties or preponderantly antagonistic properties, decrease those Doshaas when they are used for a sufficiently long time. On this basis the number of individual Rasaas is limited to six and the number of Doshaas, to three.

Rasakalpana and Doshakalpana.

Now, the ripe mango is sweet, *i.e.*, having Mathura Rasa and consequently it possesses all the properties of Mathura Rasa. In articles with two Rasaas, such as Mudga which is Kashaaya and Mathura, the total effects that the natural combination produces may be guessed, and so also in articles even with 3 or 4 Rasaas. Prepared foods or substance, where many articles are mixed, generally possess the combined effect of the Rasaas, *i.e.*, milk, sugar and rice mixed together, go to form only Mathura Rasa in a peculiar way, and this food is therefore highly nutritious. Again, rice mixed with buttermilk with a little salt goes to form a substance containing Mathura Rasa along with Aamla Rasa, Lavana Rasa in particular proportions. In this substance (rice with buttermilk and salt) the proportions of the Rasaas vary, namely, Mathura Rasa occupies a large range while Aamla Rasa occupies a relatively less one, while Lavana and Kashaaya Rasaas occupy still less. This food combination is useful in particular states, where there is the need for nutrition, for increasing the digestion and for cleaning the Srotasses. Milk with rice is useful in a disease caused by Vaata and Pitta, while buttermilk with rice is needed in a disease caused by Vaata and Kapha. Except in specific diseases *i.e.*, in diseases which have a definite name or have a course of specific treatment (*Vyaadhi Pratyaneeka*) Chikitsa, the relative

strength and proportions of the Doshaas in every disease have to be estimated in order to formulate a scheme of treatment which includes dietic regulations. For instance, in a form of Sannipaata Jwara, where Vaata and Pitta are the predominant Doshaas Mathura Rasa is allowed as a diet and not the other Rasaas. Here, the administration of a decoction of grapes or dry date fruits (Kharjooira) may be found suitable. The selection of the diet or medicine however, depends not only on the Rasa but also on many other factors, such as the state of Agni, Saatmya, Bala, Kaala and such other considerations. Thus, in the above case of Sannipaata Jwara milk may not be admissible, if the Jatharaagni is found to be very weak or if the fever happens to be a Taruna Jwara (new or unripe fever). So also, Maamsarasa, which is also sweet, may have to be rejected as being Asaatmya to the patient, and even if it is allowed to a patient to whom it is a Saatmya, it should be Jaangala Maamsa Rasa and not Anooapa Maamsa Rasa. For, the former has Laghu Guna, while the later has Guru Guna. This consideration is also very important as the food containing Guru Guna may vitiate the already stifled Jatharaagni, aggravating the fever in its wake. In another case of Sannipaata Jwara, where Kapha Dosha predominates, Mudga Yoosha boiled with tender neem leaves or mixed with Trikatuka may have to be given. Mudga contains Kashaayam and Madhura Rasaas, and it has Katu Paaka and the addition of Tikta Rasa in the form of neem leaves or of Katu Rasa in the form of Trikatuka, makes it a more suitable form of diet in this kind of fever. So also, in a type of Sannipaata Jwara, where Vaata and Kapha predominate, Kuluttha Yoosha may be found useful. Buttermilk is also advocated (Susruta) in such types of Kapholbana (Sannipaata) Jwara; the buttermilk may be seasoned with Sonti powder and a little rock salt in consideration of the Doshaas constituting the Sannipaata Jwara. Hence, on this consideration of the Doshaas constituting a particular disease, the drugs and foods have to be devised carefully taking into account the Rasaas and other considerations such as Desa, Kaala, and the state of Jatharaagni etc.

So Charaka says :

“Kwachit eko rasah kalpyah
Samyuktaascha rasaah kwachit
Doshoushadhaadeen samchintya
Bhishajaa Siddimichchatoa—”

—Charaka Sootra Ch. 26-V-23

In some cases, it is necessary to administer one Rasa and in some other cases, more than one Rasa (in particular combinations). All these are to be determined taking into account, the state of the Doshaas and the Gunaas of the appropriate drugs etc.

He further says.—

Yah syaat rasavikalpajnah
syaatcha doshavikalpavit
Na sa muhyet vikaaraanaam
hetulingopasa~~at~~tishu

—Ibid V. 25.

A physician who is an expert in devising the combinations of the Rasaas in suitable and accurate proportions and also who correctly estimates the proportion of the Doshaas (constituting the disease), cannot go wrong in affording relief to patients suffering from multifarious ailments caused by various causes, and exhibiting different symptom-complexes.

Thus, a physician has to reckon carefully all the Rasaas in a particular medicine or food, as well as the Doshaas, which are influenced by the Rasaas in the particular diseases before administering the food or medicine.

Tatra khalu anekaraseshu dravyeshu
Anekadoshaatmakeshu cha
vikareshu rasadosha
Prabhaavam ekaikatwena
abhisameekshya tato dravya-
Vikaaraprabhaava tattwam vyavasyet—

—Charaka - Vimaana - Ch. I, L. 9,

General and Special combinations of Rasaas and Doshaas.

Although the general principles regarding the physiological properties of the six Rasaas as enunciated above hold good, there are many exceptions to them.

“Natu evam khalu sarvatra, na hi
Vikritivishamasamavetaanaam naanatmakaa -
naam
Dravyaanaam parasparena cha upahataanaam
Anyaischa vikalpanaih vikalpitaanaam
Avayavaprabhavaanumaanena
Samudaayaprabhaava tattwam
Adhyavasaatum sakyam”

—Ibid L. 10.

The principles stated above do not always apply. The knowledge of the exact proportion of component Rasaas of the drugs and of the medicines that are used and the exact proportion of the Doshaas that cause the disease, does not help us everywhere. There are so many Dravyaas and their combinations in which these Rasaas are mixed up in a most complicated manner and so many Samskaaraas and alterations that take place during the course of their preparation, that it is not possible to estimate the properties of the resultants. In the same manner, there may be good many diseases, in which the Doshaas are mixed up intricately and made more complex by the Samskaraas - changes due to time, place and individual tendencies. In such cases, the outstanding and resultant effects of the combination of drugs or of the foods must be taken into consideration, and we have also to consider the specific diseases brought about by such intricate combinations of the Doshaas.

Pithara Paaka.

There are two ways in which the combination of Rasaas takes place.

1. The normal or machanical combinations which take place generally between the different Rasaas. These are called normal

general combinations - Prakriti Sama Samavaaya. They are of the nature of a mechanical mixture. According to Vaiseshikaas, the changes that they undergo are said to be caused by Pithara Paaka. The molecular structure of the component parts is not destroyed and each of the constituents contributes its influence to the resultant combination. Here the properties of the resultant mixture of the combinations follow the qualities of the Rasaas that enter into the combination.

Peelu Paaka.

2. Bio-chemical combinations sometimes take place in certain instances between the Rasaas that enter into the combination. These are called abnormal special combinations - Vikriti Vishama Samavaaya. These are of the nature of chemical compounds. According to Vaiseshikaas, the changes that these undergo are called Peelu Paaka. The molecular structure of the component parts is broken up and the properties of each of the constituents are not recognised in the combination and they are inexplicable by any amount of argument; properties altogether different from those of the constituents may be developed. This theory is further explained thus.

Prakriti Sama Samavaaya.

Prakriti Sama Samavaaya means the combination of causes and effects that can be rationally traced to the constituent elements. This relates both to Dravyaas and to diseases. Let us take a Dravya - say, Mudga. This substance possesses Kashaaya Rasa and Mathura Rasa and consequently this substance is a nutritive. It also exhibits a little Rooksha and Seeta Gunaas. Mudga is therefore useful in Pitta and Kapha Doshaas. Similarly Draaksha fruit possesses Mathura Rasa and consequently it is nutritive and Seeta. In these two instances, the Rasaas are combined in a normal general combination.

Vikriti Vishama Samavaaya.

Now let us take the case of the combination of Rasaas in Tila (sesame seeds) to illustrate abnormal special combination - Vikriti

Vishama Samavaaya. The substance Tila is nutritive as a food stuff, no doubt, but it also increases Pitta and Kapha. When we consider the four Rasaas in it, we may see that this substance should decrease Pitta because it contains three Rasaas, Mathura, Tikta and Kashaaya which reduce Pitta and Katu Rasa here is minor Rasa. So also, the three Rasaas, namely, Tikta, Kashaaya and Katu should normally reduce Kapha but we see that it is not actually the case. It increases Kapha on the other hand. So Chakrapaani says, that certain Rasaas, though present in certain substances, are there in a latent state as it were. That is, their effects are not seen. On the other hand certain opposite or contrary effects are also seen. These cases are denoted by the term Vikriti Vishama Samavaaya. (i.e., such a combination is denoted by this term).

These two terms are explained by the use of analogies in a clearer way as follows:—

Prakriti Sama Samavaaya is like Tilatandula Samsrishti (mechanical mixture) and Vikriti Vishama Samavaaya is like Haridraachoorana Samyoga (chemical compound). Suppose you mix a quantity of Tilaas (black sesame seeds) and a quantity of Tandulaas (white, polished rice grains). Tila seed has got a quality, namely, blackness (Roopaguna Krishnatwam) and Tandula has got a quality, namely, whiteness (Roopaguna - Suklatwam). When both of these are mixed together, the colours (Roopa Gunaas) are mixed up but are easily identified. In this mixture, we can distinguish the quality (whiteness) belonging to the grain of rice and the quality - blackness belonging to the Tila. These two Gunaas (colours), though mixed up, do not produce any other abnormal colour. This is an instance of Prakriti Sama Samavaaya.

When Haridraa (turmeric paste) and Choornam (slaked lime) are mixed, the mass becomes red. The substance Haridra possesses a quality (yellow colour) and Choornam possesses another quality (white colour), neither of which is retained in the mixture nor a whitish yellow colour remains, but an absolutely different quality (red colour) is produced. This red colour cannot be explained from the causes, namely, white and yellow colours, but

being a fact, it is taken as an instance of Vikriti Vishama Samavaaya.

The two terms are similarly explained in the case of combinations of the Doshaas. In Dwandwa Jwaraas, there are two types, 1. a Prakriti Sama Samavaaya type and 2. a Vikriti Vishama Samavaaya type. Let us take an instance.

In Vaata Sleshma Dwandwa Jwara of normal combination respective symptoms indicating the two Doshaas, namely, Vaata and Sleshma are seen. In such a case, for instance, the symptoms such as trembling, dryness and pain relate to Vaata, while heaviness, laziness and sweet taste in the mouth relate to Kapha Dosha and we call the disease a Vaata Sleshma Jwara. Here, the symptoms relating to the two respective Doshaas may be easily recognised. Therefore, this is a case of Prakriti Sama Samavaaya. In another case, suppose, there exist the symptoms as Staimityam (Kapha symptom), Parvabheda (of Vaata), Nidra (of Kapha) Gourava (of Kapha), Siroroga (of Vaata), Pratisyaaya (of Kapha), Kaasa (of Kapha, may be of Vaata also), Swedaappravartanam, i.e., profuse sweating all over the body (neither of Vaata nor of Kapha) burning sensation in the body (Santaapa - neither of Vaata nor of Kapha) and moderate course (Madhya Vega) of the fever.

Staimityam parvanaambhedo nidraa
Gouravameva cha, sirograhah
Pratisyaayah kaasah swedaappravartanam
Santaapo madhyavegascha vaata
Sleshmajwaraakritih

—Susruta-Uttara-Ch. 39.

The above symptoms constitute Vaata Kapha fever of a Vikriti Vishama Samavaaya type. Here, it is expressly stated on the authority of Susruta, that the above symptoms constitute Vaata Kapha Jwara. That is, the above fever is principally caused by Vaata and Kapha. Now, profuse sweating all over the body is a phenomenon peculiar to this Jwara. (For, the definition of Jwara includes lack of sweat according to the text - (Swedaavarodhas-

santaapah sarvaangagrahanam tathaa, yugapat yatarogecha sa jwaro vyapadisyate) - Susruta Uttara Chap. 39. V. Another authority, Haareeta also corroborates the same statement, namely, that such a phenomenon is caused in Vaata Kapha Jwara. Here, we cannot give the meaning 'lack of sweat' to the word Swedaa-pravartanam brushing aside the authority of Haareeta and various other commentators as Dalhana, Vijayarakshita etc. This phenomenon must be explained in some other satisfactory way. Generally, Vaata and Kapha either individually or combined together do not produce profuse sweating. Nor this phenomenon of profuse sweating can be attributed to Pitta Dosha, as, in such a case, this Jwara will be termed as Sannipaata Jwara and not a Dwandwa Jwara. Perhaps, this type of Jwara was cured with proper Anti-Vaata-kapha treatment. Therefore, this form of fever was mentioned as a Dwandwa Jwara of Vaata Kapha type and it is explained by the commentators as an instance of Vikriti Vishama Samavaaya.

The peculiar phenomenon, namely, Vikriti Vishama Samavaaya is described as having very strong Hetus (Hetubalaadeva rasa doshayoh vikritah vishamo va melakah bhavateetyarthah - (Chakrapani - Charaka Vyaakhya. Vimaana - Ch. I. L. 10)

Like the above Dwandwajwaraas, there are instances of Sannipaatha Jwaraas exhibiting symptoms of Prakriti Sama Samavaaya and Vikriti Vishama Samavaaya types. Abhinyaasa Jwara is an instance of Vikriti Vishama Samavaaya type.

Thus, in a group combination of different substances, where it is not possible to assess the total proportion and values of the Rasas inherent in the compound rationally, the total effect of the combination of the substances forming the compound should be taken into account as Vikriti Vishama combination. This applies both to Rasaas and to Doshaas.

Four categories of Powers.

Thus, there are four important kinds of powers caused by the combinations of Rasaas and Doshaas.

1. Rasa Prabhaava - The power of Rasa knowledge of the properties of a substance based on the knowledge of its component Rasaas.

2. Dravya Prabhaava - The power of Dravya - knowledge of the properties (Gunaas) of a substance (or a compound substance) which are not attributable to the Rasaas that it contains but to the properties (Gunaas) of the material constituents.

3. Dosha Prabhaava - The power of Dosha, *i.e.*, the knowledge of the processes of disease according to the Doshaas - their proportion, location etc.,

4. Vikaara Prabhaava - The power of the combination *i.e.*, knowledge of the specific disease irrespective of the Doshaas.

“Tasmaat rasaprabhaavatascha
Dravya prabhaavatascha
doshaprabhaavatascha
Vikaaraprabhaavatascha tattwam
upadekshayaamah

—Charaka - Vimaana Ch. I. L. 12.

Examples for the four categories are given below :—

1. Rasaprabhaava - Draaksha fruit has got Madura Rasa. Consequently, it is nutritive, Seeta, Vrishya etc.,

2. Dravyaprabhaava - Vaartaaka (Brinjal) possesses Katu and Tikta Rasaas mainly and it should naturally promote Vaata; on the other hand, it is a Vaatahaara substance. So the property of Vaataharatwa is peculiar to Vaartaaka. Similarly, there are medicinal substances which come under this head *e.g.*, Tugaraka Beeja is good for Kushta (Leprosy). Here irrespective of the Doshaas vitiated, Tugaraka is advocated in leprosy. Similarly, Sannipaata Bhairava Rasa (Aandhra Saampradaaya) is indicated in Sannipaata Jwaraas and Vaata Gajaankusa Rasa in Vaata diseases. These are instances of Dravya Prabhaava.

3. Dosha Prabhaava - All diseases are caused by vitiation of the Doshaas. They vary however, according to the location,

degree, nature of the Dosha and the affected Dooshya and according to the combination of the Doshaas and Dooshyas, Kaala etc. The physician who makes an accurate analysis of the Doshaas that constitute the disease can create it by applying the proper remedial measures in consonance with such an analysis. Here the name of the disease is not very important. A physician who applies treatment according to the nature of Doshadhaatu Sammoorchanam often succeeds. The treatment in this case depends upon the accurate knowledge of Dosha Prabhaava.

4. Vikaaraprabhaava - This is the knowledge of the specific disease, such as syphilis and diabetes, so to say, as distinct from the knowledge of Doshaas, their location etc. Thus, there is a great scope for a Pitika (carbuncle) such as Saraavika, Kachchapika etc., to be caused in the disease called Prameha. Here the Pitika is attributed to Prameha. If Prameha is not the underlying cause of the Pitika, the treatment may be altogether different. This is an instance of Vikaara Prabhaava.

The importance of Vipaaka, Veerya and Prabhaava.

When we deal with the properties of substances, we have also to consider the Veerya, Vipaaka and Prabhaava of Dravyaas in addition to Rasa. These categories also help us to understand the nature and effects of the substances either as drugs or as food stuffs. Now how to include these in the above broad categories, namely, Rasaprabhaava or Dravyaprabhaava? Chakrapani includes these categories both in Rasa Prabhaava and Dravya Prabhaava. When Veerya and Vipaaka are akin to the nature or homogenous to the Rasa, they are included in the first category, namely, Rasa Prabhaava. For example, cow's milk has Madhura Rasa, Madhura Vipaaka and Seeta Veerya. Here, Madhura Vipaaka is the same as Madhura Rasa and Seeta Veerya is akin to Madhura Rasa as Seeta Guna is the characteristic property of Aapbhoota, which is an essential constituent of Madhura Rasa. Here, in this substance (cow's milk) the Rasa, Veerya, and Vipaaka - all are in the same order. In such instances, the Veerya and Vipaaka are included in Rasa Prabhaava. That is to say, that Madhura

Rasa in cow's milk can represent and account for Madhuravipaaka and Seeta Veerya. This is what is meant by the idea of including such homogenous Vipaaka and Veerya in the Rasaprabhaava. Where an unhomogenous Vipaaka or Veerya is noticed in a substance, such Vipaaka and Veerya are attributed to Dravya Prabhaava. For instance, fish have Madhura Rasa, Mathura Vipaa-ka but Ushna Veerya (unhomogenous Veerya). Hence, the net properties of fish are attributed to Dravya Prabhaava. The word 'Prabhaava' in Rasa, Veerya, Vipaaka and Prabhaava always means the Dravya Prabhaava unless it is otherwise specially stated.

In short, the properties of Dravyaas depend to a large extent upon their Rasaas but in certain instances, they depend upon the unknown factor called Prabhaava — 'Achintya Sakti'. (*Prabhaavo Achintya Uehyate*—Charaka Sutra - Ch. 26). The properties may also depend upon the Veerya (the capacity to heat or cool), and on Vipaaka - the final result of the digestive processes.

Vipaaka

When a substance is eaten (or drunk), it comes into contact with the Jathaaraagni (Paachaka Pitta). When this Jathaaraagni is powerful and when food is brought into contact with it (Sam-yoga), Paaka begins to take place. This Paaka (physiological) is called digestion. During digestion (Paaka), the food undergoes many changes. In this process of Paaka, the Rasaas may be changed. This changing of the Rasa of the substance into a certain similar or dissimilar Rasaas is called Vipaaka (*Jatharaagnina yagaat yat udeti rasaantaram, rasaanaam parinaamaante sa vipaaka iti smritah* - Vagbhata - Sutra - Ch. 9).

That is to say, that, after the completion of digestion, the substance would produce certain action and by that action, it can be known that the substance has undergone such and such a Vipaaka. Thus, Vipaaka is ascertained by Anumaana, i.e., inference made by the effect. These effects of Vipaaka commence after the full digestion is completed. There are three Vipaakaas for all Dravyaas. Madhura Vipaaka, Amla Vipaaka and Katu

Vipaaka. Mathura Vipaaka increases Kapha, Amla Vipaaka increases Pitta and Katu Vipaaka increases Vaata.

Mathura Rasa and Lavana Rasa usually undergo Mathura Vipaaka; Amla Rasa usually undergoes Amla Vipaaka; Katu Tikta and Kashaaya Rasaas usually undergo Katu Vipaaka. For instance, Draaksha fruit, which has Mathura Rasa, undergoes Mathura Vipaaka. Rasa is Pratyaksha, i.e., directly known by the Jihwendriya. Whereas Vipaaka is inferred from its effects—*Rasah Pratyakshenaiva, Vipaakastu Nitya parokshah Tatokaryena Anumee-yate* - Chakrapani (*Charaka Vyaakhya-Sutra-Ch. 26-V. 66.*)

Saindhava Lavana or even Samudra Lavana undergoes Mathura Vipaaka. Aamalakee fruit which has principally Amla Rasa undergoes Mathura Vipaaka and not Amla Vipaaka as it should. On the other hand, Sonthi which has Katu Rasa undergoes Madhura Vipaaka, whereas Maricha (pepper) undergoes Katu Vipaaka only. Consequently Maricha is good as a Sleshma-hara drug but it is also Avrishya, whereas Sonthi is also Sleshma-hara to some extent but not Avrishya on account of its undergoing Mathura Vipaaka. This special property enables Sonthi to be used, when there is Kapha vitiation and lack of Vrishya principle in the body, while Maricha is valuable in Kapha vitiation with no consequent fear of Avrishyatwa. It may be clearly seen that the degree of Kaphahara (Kapha reducing) principle in Maricha is greater than in that of Sonthi. † These subtle points of difference are to be noted very carefully.

† "Tathaa Katukorasah Sunthyaardraka
Pippalyaadisthah madhuram
Pachyate, Tathaa choktam Naagaram
Deepanam vrishyam graahi hridyam
vibandhanut, Ruchyam laghu swaadu
paakam snigdghoshnam Kaphavaatajit"

—Astaangahridaya Sutra - Ch. 9.V. 21.

Arunadatta's Commentary or Compare Charaka's Quotation about Maricha.

"Naatyartham Ushnam Maricham
avrishyam laghu rochanam
Cheditwaat Soshanatwaatcha Deepanam
Kaphavaatajit"

—Charaka Sutra - Ch. 27-V. 295.

Veerya.

Next, we have to consider "Veerya". Veerya is Sakthi. It is a sort of Karma Padaartha. This Veerya accounts for the effects of the drug from the time of ingestion and as long as it lasts in the body. That is to say, a substance manifests its action as soon as it comes into contact with the tongue and as long as it lasts in the body. Chakrapani Datta, however, says that a substance manifests its action through its Veerya only till the Vipaka takes place. His position is that Rasa commences its action only during the stage of its contact with the tongue (Nipata). Immediately after that, the action of the Veerya commences and it lasts till the Paaka is over and the ultimate action of the drug is seen in its Vipaka. '*Rasonipaate Dravyaanaam, Vipakah Karmanishtayaa, Veeryam Yaavat Adheevaasaat Nipaataatcha Upalabhyate*' (Charaka Sutra 26, V. 68). *Adheevaasah Suhaavasthaanaam Yaavat Adheevaasaat Ili Yaavat Sareeraniivaasaat, Etatcha Paakaatpoorvam Nipaataatcha Oordhvam Jneyam.....*' Sahaavasthaanam means dwelling or residing together i.e., as long as it lasts in the body. The effects of Veerya of some substances, however, are seen even during the stage of initial contact. There are two kinds of Veerya, namely, Ushna Veerya and Seeta Veerya, i.e., the Ushna effects or Seeta effects that are produced.

Thus, it can be seen that a substance contributes its properties to the body by Rasa to some extent, by Veerya to some extent, by Vipaka to some extent and by Prabhaava to some extent (see below). Sometimes, all the first three may fall in one line and thus act homogeneously (then the whole effect of the substance is attributed to the Rasa relegating the Veerya and Vipaka and including them in Rasa Prabhaava)—Draaksha fruit or Ksheera (milk) or ghee has Mathura Rasa, Mathura Vipaka and Seeta Veerya and thus a total, homogenous effect of alleviating Vaata and Pitta is produced. In honey, on the other hand, we find a strong Kapha reducing factor, since it undergoes Katu Vipaka. Honey has Mathura and Kashaaya Rasaas. On account of its Mathura Rasa, it ought to increase Kapha. But, it is not so. It reduces Kapha on the other hand. The reason is here attributed

not so much to Kashaaya Anurasa but to Katu Vipaka. Sometimes, this Vipaka in certain substances has favourable effects and in certain instances unfavourable effects. Thus, a substance has Rasa, Veerya, Vipaka, all of which have their contributions. If they are of one and the same nature, the effect will be uniform throughout. If not, they will have different effects, which are not incompatible. Thus, Pippalee (dry) reduces Kapha by its Rasa as soon as it comes into contact with the tongue (Nipaata) and continues the same Kapha reducing properties on account of its Ushanaveeryatwa but stops its Kapha reducing action when it undergoes Mathura Vipaka. On account of such Mathura Vipaka, the total effect will be reduction of Kapha without any depleting effect on the vital fluid (Sukra). Maricha, on the other hand, reduces Kapha when it comes into contact (Nipaaka) with the tongue, continues to do the same still further on account of its Ushna Veerya and Katu Vipaka. Thus, Maricha is valuable in reducing Kapha more than Sonthi (or Pipalee) but as it causes loss of virility, it is not so valuable as Sonthi in these cases where loss of virility is found along with excess of Kapha.

Prabhaava.

In addition to the considerations discussed above, there is the Prabhaava or the inexplicable action of a substance—Chitraka has Katu Rasa, Ushna Veerya and Katu Vipaka and thus it is a valuable Kapha reducing agent. Danti Moola, similarly has Katu Rasa, Ushanaveerya and Katu Vipaka and it is also a Kapha reducing agent, but Danti is a purgative whereas Chitraka is not. For generally speaking, drugs which have a Katu Vipaka are not purgatives and this Dantee is an exception. Katu Vipaka acts like Katu Rasa, i.e., acts upward, since Katu Rasa consists of Agni and Vaayu Mahabhootas in preponderance, which have a tendency to move upwards. (*Dravyam Oordhwagamam Tatra Praayaagnipavanotkatam - Vaagbhatam - Sut. Ch. 9*) Hence, Dantimoola should constipate strictly speaking. But, here is the fact of the purgative action of Danti and this is attributed to its Prabhaava, i.e., inexplicable phenomenon (*Prabhavo Achintya Uchyate - Charaka - Sutra - Ch. 26 - V. 72*).

The relative strength of Rasa, Veerya, Vipaka and Prabhaava when they are of equal strength (Balasaamya) are as follows.

Vipaka is more powerful than Rasa, Veerya is more powerful than Vipaka. Prabhaava finally is more powerful than Veerya, i.e., the most powerful of all. All these have their effects in their due time and so they are not inimical towards each other. Each will contribute its properties to the system, one after another and if the individual effects are similar, the total effect will be more pronounced. If the properties are contradictory each will produce its own properties in its own time. Some substances with contradictory properties have also their own valuable use in therapeutics. It may be noted that in the above order, Vipaka, though coming after Veerya, is not stronger than Veerya. Charaka has the order as Rasa, Veerya, Vipaka and Prabhaava while Vaagbhata has it as Rasa, Vipaka, Veerya and Prabhava.

Aptavaakya - acknowledged testimony.

The Rasa, Veerya, Vipaka and Prabhava of all substances both organic and in-organic have been codified in Aayurveda. Thus, gold has Madhura Rasa, silver has Amla Rasa and so on. Rasa Veerya, Vipaka and Prabhaava of every article and groups of articles are definitely noted in the Texts. There are groups such as Jeevaneeya, Brihmaneeya, Lekhaneeya, Aaragwadhadi Gana, Nyagrodhadi Gana, Triphala, Trikatu, Panchamula etc., whose effects are carefully studied and classified—The practitioner has only to pick up a group of drugs according to its properties. Similarly the properties of prepared food stuffs (Kritaanaa Varga) are given in great detail. With regards to these properties mere reasoning alone should not drive one to any conclusions. Apta Vaakya of Rishis which is a result of their intuition and prolonged experience is recorded as the Saastra (the science). It should be properly understood and utilised and mere reasoning alone will not do.

“Pratyakshalakshana phalaah
Prasiddhaascha swabhaavatah
Na Oshadheeh hetubhih vidwaan

Pareeksheta kathamchana
Sahasrenaapi hetoonam Na Ambashtadih
virechayet
Tasmaath tishthestu maatimaan agam
natu hetushu”

—Susruta Sootra Ch. 40 V. 20-21

All substances are endowed by nature with certain definite properties. Their existence cannot be argued out even by a thousand arguments. The properties are there and that is certain. Our arguments may sometimes help us to understand their properties but no one should question these properties if, by his reasoning he cannot explain why nature gave that substance that particular property. No amount of argument can make * the Ambashtaadigana a purgative because by nature the Gana has (the contrary) properties of constipation. Therefore a wise man shall act according to the dictates of the Saastras without wasting his time in arguments.



* Ambashtaadi Gana—

Ambashta (Maachikaa), Dhaatakikusuma, Samangaa (lac) Katvanga (Araluka), Madhuka, Bilwanesikaa (Bala) Bilwamajja Saavararodhra (Lodhra), Pilaasa, Nandeer iksha (Kasmaari) and Padmakesaram.

Ambashtadi Gana (as well as Priyangvadi Gana) are useful in Pakwaateesaara (diarrhoea without Ama Dosha). This Gana causes Sandhaana (union of bones etc) is beneficial in Pitta and heals the ulcers (Vranaanaam Chaapi Bopanaau). They are never purgative.

—Susruta Sutra Ch. 9

CHAPTER I

I

PAST HISTORY

“Anuraktah suchih daksho
Buddhimaan parichaarakah.”

—Vaagbhata Sootra - 1.

The nurse should be affectionate, clean, capable and intelligent. —Vaagbhata Sootra - 1.

Nurses mentioned in Vedas.

The Institution of Nursing in India is as old as the Vedas. The names of Raakaa, Susha, Vishkala, Sinivali, Ganga, Kuhu, Saraswati, Anumati, and Saavitri, are found in the Vedas as women practicing midwifery at that time. They were greatly respected by the people, and these names are sacred to us.

There is mention of male and female nurses, who were specially trained for attending on the wounded.

Susruta rightly condemns the appearance, conversation or touch of women whose relationship to the patient is of the marriageable type.

† Submitted by Dr. A. Lakshmipathi, Chairman to the members of the Committee for the promotion of Ayurveda on Registration of Daayis in the Andhra State, dated 18th May 1954.

“Gamyānaamcha streenaam

Sandarsana, sambhaashana, samsparsanam
Doorata eva parihareth.”

—Sootra 19-12.

The words Gamyānaamcha Streenaam clearly shows that other women whose attendance does not excite passion, such as a sister or mother, or any other women with similar relationship may be allowed.

Dhaatri and Daayi.

Female attendants on patients generally may be divided into three classes.

(1) Parichaarika—Sick Nurse.

(2) Daayi—Prajānana Kusala—Expert in midwifery.

She is now called Daayi or Dai. The word Daayi is probably derived from the word Dhaatri-Daadi.

The Tamil word Taayi might have become Daayi—which also means mother. It is now used throughout India to denote a midwife who follows the traditional profession.

(3) Dhaatri—Wet-nurse *i.e.* one who nourishes the child with her milk. Dhaa—to nourish. The English word nurse is also traced to Latin—NUTRIX to nourish.

Four Nurses to one Child birth.

Susruta says that four elderly women (*Parinata vayasah*) who are experts in the art of confinement of women (*Prajānana kusalaah*) should nurse a woman in labour. It may be asked by those who are ignorant of Ayurveda, why four women should be appointed to nurse her. It may also be asked what knowledge of midwifery do they possess.

I myself did not know for a long time that a great amount of valuable traditional knowledge regarding child-birth was handed down to our elderly women and midwives from word of mouth, although some of them were illiterate. This is due to the fact

that Ayurveda was taught not only to the medical men—Vaidyas—but also to every citizen as a compulsory subject, in his usual course of studies. As the instruction was mainly through verse and songs, even the illiterate could learn not only the elementary principles but even the minute details of the art. This is because our civilisation is thousands of years old, not merely four or five hundred years old as in European countries.

An art can be learnt even by the illiterate.

The Arts in India could be learnt even by the illiterate men and women, because most of them were propagated through the verse and songs and the essentials of the art are got by heart as a matter of routine.

For instance, the weavers of the wonderful carpets which acquired a world wide fame and which were exported from Ellore and Masulipatam in the Andhra Districts, were mostly illiterate. I also saw skilled carpet weavers in the Jails of Jaipur and Bikaner among the prisoners. It was a great surprise to me to know that the secret of the success in their superior art was due to the fact that as the weavers weave enchanting and multi-coloured carpets with beautiful designs, they sing, simple folk songs with rhythm and thus guide each other as regards the arrangements of the coloured threads. The song announces the number of threads of each colour which have to be employed at any time, according to the design of the carpet. The Muslims in the North as well as the Hindus in the Andhra State follow the same tradition and produce the valuable carpets of several designs which are common to them, but they are mostly illiterate.

Midwifery a traditional art.

I have given this example, because the art of midwifery was also handed down by tradition and propagated through the verse and song through thousand of years. Although Susruta wrote his books more than two thousand years back and although there was no printing till recently, the book has come down to us more or less in its original form. But, the practice of the art was preserved in the (midwives) not so much through study of Ayurvedic

books, but by tradition. The present day book-expert in midwifery does not know that what the (Daayi) is doing is also what is described in the Ayurvedic books. The scholar does not know that the ignorant Daayi has been practicing the art, that is described in detail in his books. There is great need for research in order to study and bring together the practical art of the Daayis and the theoretical knowledge contained in the several texts. Now is the time for us to bestow great attention to it, because we are getting rid of the glamour attached to the infant Sciences of the West.

I can only give here a few instances to show how the Indigenous Daayi is still the store house of valuable knowledge which should be proudly treasured by modern experts. I am neither an expert in ancient midwifery, nor in modern midwifery, but I venture to write on this subject, because, I am anxious to state that research has to be started in this direction.

Maternity Home.

Description of the labour room shows that the confinement of a woman should not be feared, but it should be considered as auspicious occasion and the women in labour should be encouraged to be bold and happy.

After the completion of ninth month, the pregnant women shall enter the Sootikaagaara—the maternity home, built in the traditional manner suited to the women's clan or caste and the means. It should have different compartments and the whole place should be fitted with the necessary furniture according to a definite plan (*Sarwaagaaram Yadhaasamkyam*). It should have the walls white-washed and colour-washed according to taste and tradition (*Upalipita Bhittim*). It should have the compartments definitely divided off by suitable screens (*Suvibhakta Paricchadam*). It should have Southern or Eastern gate-ways. Each compartment shall measure eight hastaas (Yards) in length and four hastaas in breadth. It should be fumigated (*Rakshaa*) and decorated with auspicious flags and huntings (*Mangala Sampannam*). (Susruta Saareera 10-4)

The qualities of nurse.

As has been already stated, the nurse should be truly loving (*Anuraktah*). She should be fond of the patient and shall not have any selfish or mercenary considerations. She should be perfectly clean (*Suchih*) in body, speech and actions. She should be quite capable in her professional work (*Dakshah*) and be intelligent.

Conducting Normal Labour.

SUSRUTA SAYS IN SAREERA (10-5).

"The onset of labour is indicated when the joints of the loin become loose, and the chest is felt to become light and free. The pain is gradually complained of in the loin and back. She frequently tries to urinate and defecate and a slimy discharge escapes from her vagina."

She should then be anointed with medicated oils and bathed in hot water. She should be well fed with semi-liquid food containing plenty of milk. She should lie down on her back upon a broad soft bed, supporting her head on a pillow and keeping her thighs somewhat raised and fixed comfortably. Four elderly women (*Parinata vayasah*), who are experts in conducting childbirth (*Prajanana kusalaah*), who are free from doubts (*Asankaneeyah*), should have their nails pared off and should be appointed to nurse her constantly. The four women should take their place as follows.

One will be in charge of the reception of the child and she will post herself in front of the woman in labour.

One or each will occupy their place on the right and left of the lady at the level of the thighs on each side.

One will occupy her place at the hips and is in charge of the back.

These women should massage comfortably the area allotted to them—ANULOMAM, ANUSUKHAM, ABHYAJYA. The massage is done from above downwards with castor oil or other fragrant medical oil so as to please the patient.

VAAGBHATA says, that before the lady takes her bed on a cot she should be asked to lie down on a mat on the ground (*Tanou Bhooasayane Sthitham*) and that she should be massaged well and

hard (*Vimridneeyaat*) after applying the oil and advised to walk up and down and stretch her body to the full length. Then, when the pain becomes severe, she should be put on the cot.

The midwife who is in charge of the delivery of the child should say, "*Subhage pravaahaswa*". Fortunate lady! bear well down, so that you may not feel any trouble. Be calm. Don't strain too early. ("*Mrudu poorvam pravaaheta*"—Vagbhata Saareera 1-81). When the Os dilates and pain is radiated towards the loins, the groins and the hypogastric region—"Sa sooleshu sroni vamkshana vasti sirasu cha" "bear down slowly and slowly"—"*Pravaahedhaa sanaih sanaih*".

After the foetus moves down, she should gradually bear downwards and when the foetus enters the vaginal outlet, she must be asked to exert herself to her best. (*Gadhataram avvisalya bhaavaat*).

The lady should be kept continually encouraged by the words that a male child is being born, that she is very lucky and so on.

"Harshayet tam muhuh

Putra janma sabda jala anilaih

Pratyayaanti tathaa praanaah

Sooti klesaava saaditaah."

—Vaagbhata Saareera 1-82.

She should be allowed plenty of water and fresh air (*Jala Anilaih*), if necessary by fanning continuously. By refreshing her in this manner, the pain will be partly eliminated and life will be made pleasant by the encouraging words and treatment.

Child-birth is usually considered in India as a natural event, which should take place in its own time, just as a fruit separates itself from its stalk when it is ripe. One should not interfere prematurely with the natural process.

"Kaalasya parinaamena

Muktam vrintaat yathaa phalam

Prapadyate swabhaavena

Naanyathaa patitum dhruvam

Evam kaala prakarshena

Mukto naadee vibandhanaath

Garbhaasayasto yo garbho

Jananaaya prapadyate."

—Susruta Nidaana 8-8.

The injunctions regarding non-interference are so strict that they consider it a sin to go against God's (*i.e.* Nature's) laws. Therefore, they wait patiently till the delivery takes place naturally, their business being only to nurse the woman and to keep up her strength and spirits by careful attention to her needs and by pleasing words.

Antiseptics in Ayurveda.

There are several antiseptic oils, decoctions, disinfecting fumigations and ointments prescribed by Susruta, for use in midwifery and one of them is very popular throughout India. It is a simple ointment made by mixing finely made powder of Saalmali gum. (The gum resin of Bombax Malabaricum) with ghee and honey, so as to make into smooth paste. This paste is to be rubbed to the hands of the midwife, when she has to make any vaginal examination or manipulation.

Ghrutena kalkeekritayaa

Saalmalyatasi picchaya.

—Vaagbhata Saareera 2-25.

I have been using Salmali powder for over 30 years as a dressing for cuts and wounds and I find that they always heal by first intention. Even lysol or dettol may cause some irritation to the hands in some people, but, Salmali is absolutely non-irritant. It is a natural gum which is easily absorbed by the body. Research should be conducted to find out its antibiotic properties.

Vaginal and rectal irrigation or enema with antiseptic and stimulating or soothing decoctions and oils was greatly advocated by Susruta and the other authors in midwifery practice.

Foetal position and presentations.

The several position of the foetus in the uterus and the normal and abnormal presentations are carefully described by Susruta and his followers. Management of normal labour and tackling of difficult situations together with instrumental delivery and the extraction of live child by Caesarean section are described in detail in all the text books.

The most important point to be remembered is that all this was not any secret knowledge known only to expert obstetricians, but it was common knowledge, familiar to the people particularly old women, because, as I said above, Ayurveda was not taught only to the Vaidyas (*Physicians and Surgeons*) but to all children as one of the compulsory subjects in the school course. It has spread into the homes through verse and songs and has become part of the common culture through thousands of years of traditional practice. It will be seen that the level of the knowledge of midwifery amongst the old women in this country is very high.

Fundamental principles of Midwifery.

This is not to say that Ayurveda contains everything that modern midwifery teaches, but it can be said without any fear of contradiction, that Aayurvedic midwifery teaches the fundamental principles of modern midwifery, namely,

(1) The importance of cleanliness was recognised. Plenty of hot water was used for washing and bathing (*Prabhootena Ushnodhakena parishincheth-Susruta Sootra 10-10*). Antiseptics and disinfection were well known although not with that name. Their antibiotic value should be verified and their introduction should be enforced. Susruta's success as a surgeon was due as much to his skill in surgery, as to his scrupulous cleanliness (*Parisuddhata*) of his own person, his instruments and his patient. His instruments were cleaned by submitting them to direct heat and dipping them in alkaline lotions and heated oils. Susruta also insisted on constitutional treatment for his success in Surgery.

Sarvatah parisuddhaascha
Snigdha pathyaa alpabhojinah,
Swedaabhyangaparaa nityam
Bhavet krodha vivarjitaah.

The patient should be perfectly clean in all ways (*Sarvatah Parisuddhah*); should have restricted diet with a little excess of ghee. She should always pay great attention to the process of sweating and oil-baths and should subdue anger.

(2) The most important injunction of non-interference with normal child-birth was recognised on the assumption that it is a natural event which would take place when the time comes and that unnecessary and untimely interference with the natural process in a normal case of labour is not only harmful, but is sometimes dangerous.

(3) It was also not unknown that in abnormal cases, timely intervention may be urgently needed and that the life of both the child and the mother may be saved by the use of instruments or by Caesarean section. Education in the regional languages should again be undertaken in a large scale in these matters.

Mental approach—Superiority of Ayurveda.

It may however be said that the superiority of Ayurveda lies in the mental approach. Instead of running after hypnotics and anaesthetics to relieve the pains of labour, the woman is encouraged by affectionate attendants, in whose capacity she has great faith. They are by her side pressing and kneading her limbs comfortably, massaging her up and down, saying hopeful words and encouraging her that everything will go on well by the grace of God. Her tempo is kept up by affectionate sentiments, inspiring courage. All these help the women to tide over the event. They say that they do not mind suffering a little pain in the hope of getting a lovely child. They know the dread of confinement.

In fact, pain is mental. They bear it well with fortitude. It is the educated and timid people that suffer most, on account of want of sufficient self-control. There is also a sort of pleasure in suffering pain. The soul force (*Aatma sakti*) is a hundred times more powerful than muscle force.

II

PRESENT PRACTICE

Child births in a Harijan Colony.

After writing this, I wanted to verify what is actually taking place in the rural parts, where people do not have easy access to modern midwifery. I have a farm called Arogya Ashramam at Avadi, a village situated at about 13 miles from Madras. Twelve families of Harijans with a total population of about 75 people live in the huts in the farm. There is a maternity and child welfare centre within a mile from their huts. There are annually about 3 or 4 child births in these families. Even though I advise them to go to the Maternity Centre for confinement, where all the services are free, they prefer to have their confinement only in their huts. Yesterday, after writing the above details from Susruta, I went to their huts in order to enquire in detail, how they manage their confinements and also to ascertain how far they follow the details given in text-books.

I asked them why they do not make use of the facilities provided by the Maternity Home nearby and who conducts their deliveries.

The Harijans have their own midwives. The caste women do not attend to them. They pointed to one woman who was living in one of the huts as their midwife. She is not called Daayi. She is not a professional midwife.

To my question as to why they do not prefer to go to the Maternity Home, they said that at home there are four people to assist the women in labour, whereas if they went to the Maternity

Home, she will have to suffer all alone the pains of child-birth. "None of our people will be allowed inside."

When I asked the midwife, how she learnt her midwifery, as I knew that she was a farm labourer along with the others, she told me that she was attending to confinements in the neighbourhood for the last 3 or 4 years only. She said that as a mother of five children, she was confident that she knew quite well how to conduct a delivery.

I asked her how she would conduct the delivery. She said that a woman with labour pains will be made to lie down on a mat with pillow for her head. A rope is tied to one of the rafters of the hut, and it is left hanging from the roof. By holding on to this rope, she will be able to sit up easily, whenever she wants and to pull upon it when she has to bear down, during the later stages of the delivery of the child. The midwife said that she requires 3 other elderly women, who are strong and fearless to help her in the delivery. They are easily available, because they are all ready to help each other. She herself helps others, because, it is her duty. It is not her profession and she does not live by it. She would ask one woman to take her place near the thigh on one side and another woman on the other side, similarly at the level of the thigh. Each one keeps pressing and massaging in the thigh, hips, loins and sides on her side up and down, rubbing with castor oil. The fourth woman will be on head side, to help her to sit up whenever she likes. She keeps on pressing and massaging the back up to the waist and the sides.

The midwife herself would sit in front of the woman just kneading the thighs, groins, lubricating her hands with castor oil. She would patiently wait trusting to God to complete the delivery. She would not at all interfere by inserting her fingers into the vagina but when the head is presented at the outlet, she would hold it and help its safe delivery without rupture of the perineum.

After the delivery of the placenta, she would give a wash to the child with hot water. The outer parts of the mother would also be washed with hot water. She would also have a good wash herself before she leaves the place or she would have a good wash after she goes home.

I asked her if she would not wash her hands before she conducts delivery. She said, that her hands were clean and that her nails were clean cut and that she did not need any washing. She said that during these 3 or 4 years, all her deliveries were done in that way. She does not know the value of antiseptics and asepsis as it is understood today.

Dislike for maternity homes.

The woman said that they do not like to go to the Maternity home for another reason. They are not allowed to use their own medicines and diet in which they have great faith. They take immediately after delivery 3 or 4 pills of the size of a tamarind seed made as follows :

Crushed neem leaf of the size of a marble, and two bits of garlic, a little turmeric, asafoetida of the size of a pea—These are immediately given after confinement. If this is not given, they are afraid that there would be some disease or other. No water is given nor any food for 24 hours or more. If she feels very thirsty, she may chew a bit of betel nut or pan. By control of thirst and hunger for one or two days, the Dosha or foreign matter in the body will be burnt up and the body will be healthy and light.

If the mother is feeling alright she will be bathed on third day and light diet such as a decoction of ginger with jaggery and milk, which they call coffee, is given. Then gradually a little dry bread and then rice are allowed. They are afraid to give more food for fear that the breasts will be distended with milk before the child can drink.

Kaayam-confection.

She is given a sort of confection made of black pepper, long pepper, chitrakam, asafoetida and some aromatics with jaggery and made into a mass. This is called Kaayam. The bazaar man has the list of those drugs and he sells the whole lot to any one who asks for Kaayam. Half a tola of the mass is given morning and evening with a little hot water. This would cost her about Rupees one or two. They consider this as absolutely essential for

her. If she is not given, they are afraid that the uterine discharges will not be proper, that appetite will not improve, that her body will not be reduced to her normal size and that some disease or other may attack her by lowering the resistance of the body. All this is learnt by them through tradition and through stories, Puranaas and in verse and folk songs. They said that the DENIAL of this medicine is one of the reasons for their not attending the modern hospital.

Modern hospital-The last resort.

If any abnormality in the presentation is noticed, they however admit her into the hospital although unwillingly, as midwives who are generally unmarried women, do not know about labour pains, as much as they themselves who gave birth to many children do. They said that the unmarried midwives could not appreciate the nature of labour pains and therefore they often use harsh words in their treatment at the maternity home. They do not feel that these free hospitals are really intended for their own comfort and welfare. They are further very much afraid that the AAGHAA-RAAS *i. e.* the strict injunctions about the home remedies, diet and habits will have to be disobeyed, if they once get into the hospital. Rightly or wrongly, they believe that such a thing will do them harm in the long run. It is more or less a question of faith with them.

III

THE NEW SCHEME

After writing the above lines, I thought of contacting the Director of Public Health, Andhra State for particulars about he statistics of the annual number of births in the Andhra State and other details and also to find out if his department would co-operate with us in getting the Indigenous Dayees trained for better work. Dr. D. Subba Rao, who was the present Director was good enough to give me a copy of a scheme of the UNICEF that of Public

Health he just received for giving elementary training for "DAIS" on an All-India basis.

This scheme is sponsored by the UNICEF through the Government of India. In brief, under the scheme,

The assistance made available by the UNICEF is in the form of (1) Teaching and Demonstration equipment, (2) boxes of equipment for presentation to "Dais" on completion of training, (3) bicycles for the use of personnel conducting or supervising the training schemes and (4) funds for the provision of rewards to "Dais" under training.

3,500 "Dais" will be trained under the scheme in the first instance.

For convenience in organising, a taluk with a population of about one lakh is divided into 4 or 5 sections each with a population of 20 or 25 thousands. There will be approximately 800 to 1,000 births. It will have about 60 to 80 Dais. The more popular Dais will be selected first.

It is necessary that the instructors should give the training to the Dais in their own place of work and not make them to go to the instructors, giving up their work. For this purpose, the instructors will be supplied with cycles by UNICEF. This instruction will have to be of a very elementary nature and adopted to the intelligence of and level of understanding of the women under training. The introduction should be of practical nature. These will have to be properly demonstrated.

Every care should be taken not to criticise her work and make her relationship with the family awkward. It should be recognised that she is a permanent resident of the area, and has the confidence of the families with whom she is working. During the training, the importance of anti-natal care, and recognition of abnormal conditions should be impressed on her; so that, she understands her scope of work and its limitation and seeks assistance in dealing with these conditions and learns to make appropriate arrangements. Emphasis should be laid on the knowledge of asepsis and rules and personal cleanliness. She should also learn the proper use of the equipment supplied to her.

Syllabus and Duration of the Course and Registration.

A syllabus drawn up by the Indian Nursing Council—Given below—should be used. See Appendix.

The length of the training is 6 months. The number of cases to be confined by Dais under supervision of a qualified nurse as laid down by the nursing council is 20 in a period of 6 months.

On the completion of the prescribed period of six months, an oral examination should be held for the entire group of Dais and those qualified should receive a certificate to the effect that the Dai is qualified to attend normal cases of labour. She should be given a small metal disk, bearing her name and the number of the certificate, which she should wear round her neck or carry with her. Such recognition would raise her status. A register for the trained Dais shall be maintained in the Maternity and Child Welfare section in the State Directorate of Health Service.

Teaching Equipment of "Dais".

The UNICEF have allocated sets of equipment for conducting the training. The equipment for theoretical classes and demonstrations is as under :—

1. Obstetrical Manikin and Foetal Doll.
2. Chase new born baby 20".
3. Durbal Female Organs.
4. Birth Atlas.
5. Dais Kits.
6. Bowl, Deepwash, Stainless steel.
7. Nail brushes.
8. Nail files.

Each Dai under training would be supplied by UNICEF with a kit which has simple but all essential equipment for use at a delivery, to maintain a reasonable standard of service and to make necessary precaution for ensuring proper aseptic measures.

Contents of the Kits.

Metal carrying box aluminium which can be easily cleaned.

Scissors blunt point.

Bottle screw top wide mouth for cord ligature.

Bottle screw top narrow neck for dettol or lysol.

Bottle screw top narrow mouth for boric powder.

Bottle screw top narrow mouth for baby's eye lotion.

Dissecting forceps.

Soap container.

Hair brush.

Hand towels 2.

Irrigation can 24 ozs. capacity with irrigation fittings.

Rubber tubing and stop cork.

Irrigation can with its fittings has been provided, primarily to enable the "Dai" to wash her hands and to provide her clean water for other purposes when she has no one to help her.

Water bottles two sizes with lid.

The large water bowl has a lid which can serve as a tray to lay down the articles and the bowl can be used for sterilisation when other utensils are not available.

Kidney tray.

Rubber sheeting 2 pieces.

Small bowl with lid.

Refills to be supplied to State Government.

Encouragement of "Dias".

Dais are given small rewards of a few annas for bringing pre-natal cases for examination, to Rupee One for calling the staff at the time of confinement. A sum of Rs. 10 per month would be spent for rewards for each Dai *i.e.* Rs. 60 for 6 months.

The work before us.

BHORE COMMITTEE REPORT.

It is clear that the Science and Art of Midwifery in India has fallen down from its high pedestal and had degenerated owing to the evil days that had befallen her on account of political and economical conditions. Certain prejudices and superstitions have grown around the art which had its own glorious day.

Bhore Committee report says that they feel that for many years it will be necessary to encourage the training of the Indigenous Dais and that every effort should be made to make available their service with such safe-guards as may be necessary. Page 171. Vol. 1.

"She as the hereditary midwife, has her recognised place in the Indian Home throughout the country and she therefore seems to be a valuable agent for spreading all over India, the practice of modern midwifery provided she can be made, by adequate training to render reasonably efficient service to the mother and infant during the discharge of her functions."

"The dai, as the hereditary midwife, has great influence over the people and any plan which fails to secure her active co-operation may stand little chance of success."

The Early European Missionaries who worked in India recognised the usefulness of the Indigenous Dais and an attempt was made to train them for better work as early as 1866. Bhore Committee Report Vol. I. Page 63.

Upgrading of the Daayis.

Our object shall be upgrading of this existing class of hereditary midwife with a clear understanding of the yeomen service that these indigenous dais are doing in this vast country for thousands of years.

The total population of the Andhra State according to the figures kindly supplied to us by the Director of Public Health, Andhra State was over 2 crores and five lakhs in 1953.

The number of live births in the year 1953 was 5,08,692 and number of still birth was 5,568.

The infants who died before one year of age was 66,884.

We require, at the rate of one midwife for 30 births, 17,138 midwives to serve our immediate needs.

The number of villages in the Andhra State is 15,420 and so it works out at the rate of about one midwife for every village. Even now, there are one or two untrained Dai for every one thousand of population. Therefore, we have the huge task of training about 17,000 Dayis and that as early as possible.

Foreign money has no doubt some material value. But it is the emotional approach that should achieve unexpected success and not the money. The prejudices of Dayis will disappear if an Ayurvedic approach is made to improve their teachings. Modern advances such as methods of Asepsis can be easily incorporated in the name of Suchi-cleanliness. Whatever is useful in the traditional methods which is a good Aachaara—a good habit—can be preserved. The prejudices and superstitions should be discouraged.

The duty of the ayurvedic physician.

In this most important matter, the Ayurvedic Physician has a great part to play. He must first qualify himself in First aid and Maternity and Child Welfare according to the modern methods. He has great influence with the people and the Daayis. He must use that influence in the interest of our nation to educate the Daayi to improve her work. The utilisation of the Daayi has not succeeded so far because the approach to the problem was not proper. The regeneration of the Vaidyas and Daayi should be taken up together. They belong to one system. Unless this is done, even the UNICEF with the help of foreign funds will not succeed. That scheme is very good, but it should be sponsored from the Ayurvedic side and improved upon by adding to it latest advances in modern midwifery. We require all the help that the officers of the Public Health and Medical Departments can give to this most important measure of Public Health. All departments should work together in a co-operative spirit.

Recommendations of the committee.

I therefore suggest that the following recommendations should be made to the Government of the Andhra State by our committee:—

1. That all Daayis practicing in the Andhra State should be registered.

2. That any Daayi above the age of 25 years, who is practicing for 5 years or more on the date of the introduction of the registration of Daayis in the Andhra State shall be entitled to the registration of her name in the register on payment of Rupees Two only.

3. That on her registration, the Government shall give the Daayis a tiny silver medal as an inducement for her to get registered and also as an identification of her having been registered. This will help people to recognise who is registered and who is not registered.

4. That the training classes for registered Daayis should be opened at convenient centres in the project areas and firka centres in other areas. The Daayi may get a small batta if the villages subscribe funds or from the project development funds if they permit. The UNICEF scheme may also work side by side with this scheme. There need be no rivalry.

5. That the syllabus for instruction of DAAYSIS shall be the same as that approved by the Indian Nursing Council and the course shall be for 6 months. See appendix for the syllabus.

6. (a) That the training of the DAAYSIS should be entrusted to qualified Vaidyas and to suitable officers of the Health Department, Nurse in-charge of Maternity Homes and Health Centres as an additional duty that should be done by them for which no extra remuneration need be paid.

(b) Voluntary workers may be secured from among private practitioners of modern medicine, qualified Vaidyas and Nurse on a honorary basis.

(c) The training should be integrated so as to conserve the traditional methods of Ayurvedic Midwifery, giving revised textbooks which shall be published for the purpose in Telugu. The DAAYIS may also get themselves coached up by qualified practitioners of either system and submit a certificate to the effect that she underwent a complete course of 6 months, theoretical and practical and that she completed 10 cases of normal child-birth under a supervision of an approved practitioner or officer.

(d) The Daayis course consists really of the most important portions of Home-Nursing and as such all married women and girls of marriageable age will benefit by this course. A knowledge of confinement of women and ante-natal and post-natal care and care of the infant and of Sepsis and Asepsis is welcome for any citizen. As the instructions are all to be in Telugu and the teaching is mostly by demonstrations, other girl students may also be admitted free to the classes held at the centres. They may also be permitted to apply for the examination if they complete the course of six months. The system of teaching by verses and folk songs should also be re-introduced. Non-professional candidates may be exempted from conducting delivery cases. They may be taught on the dummies and examined by using dummies.

7. That the Indian Nursing council or the Commissioner for Government Examinations, Andhra State shall conduct an examination for Daayis every 6 months at suitable centres *i.e.* where six Daayis apply for examination. The examination shall be oral and through demonstrations. The examination fee shall be Rupee One only. A certificate shall be given to every Daayi or pupil who secures a minimum of 35 per cent of the marks allotted for the subject.

Financial Implications.

The Andhra Government may appoint an officer of the grade of Health Officer, Class II, (Rs. 160-280) for two districts for organising the courses and supervising the same and an officer of the grade of Health Officer Class I (Rs. 250-580) for the whole state to be in-charge of the Daayi training department. Six

Health Officers of Class II will cost on the average Rs. 15,000 per annum and one Health Officer of Class I will cost about Rs. 5,000. The cost of their staff will be about Rs. 5,000 per annum. The total sum of Rs. 25,000 (Rupees Twenty-five thousands only) will have to be provided as a token grant for the year under this head.

The registration fees paid may be equal to the cost of the medal given to the Nurse and the examination fees may also be equal to the expenses of conducting this examination.

Personal Appeal.

I appeal to the Vaidyas, the Public Health and Medical Officers and Nurses all over the Andhra State and to the people of the Andhra State to make this scheme a success.



CHAPTER II

(*Sarvabhootha Chinta; Kathitha Purusheeyam; Putra Kaameeyam; Sukra Sonitha Suddhi; Atulya Gotreeyam; Jaathi Sootreeyam; Saareram*)

Meeting Vital problems of Healthy Progeny.

Every intelligent person is interested in the Vital problems of Healthy Progeny. How can we best prepare ourselves to meet these problems, understand their significance and assure ourselves of the possible measure of health, happiness and usefulness? This is the most important question in every individual's life experience. It is the basic education of every well organised family.

The home training, teaching and disciplining of children from infancy onward is a constant effort to prepare the young couple for the experiences of married life. That this training so often falls short and proves inadequate. The point is that every parent worthy of name wishes to have his or her child amount to something—in other words to develop into a manly man, or a finely womanly woman. The attempt to solve, in some degree of satisfaction, at least, is Society's most fundamental constructive aim. In a sense, it is the outward expression of the social conscience. It is the symbol of cultural heritage and civilization.

And to fulfil these roles, one must learn to face married life, and understand the significance of many of its problems. More often this knowledge is acquired somewhat without conscious


CHAP. II

HEALTHY PROGENY

realization of the process and with added difficulty because of the lack of conscious insight.

It is conceded that the most essential preparation for adulthood, and the best safe-guard for pre-adulthood, is an understanding of the practical side of married life and its ways. Notwithstanding this fact, the great majority of people for generations have been trying to prepare their children, for married life by leaving sex entirely out of the scheme. It was ignored.

No one can estimate the damage that has been done by the traditional practice of placing a ban on knowledge concerning the sex side of life. The children have by no means been the only victims in this respect. They have carried their lamentable traditions, so long, socially approved, over into adulthood and handed them down much as they received them. Thus the cycle is perpetuated.

Fortunately, we have a beautiful and constructive cultural heritage in Ayurveda, to the problems we must face. Consequently, it is only here and there that we need to touch upon and recover the evils that have come about so largely through the mistaken policy of silence upon some of the most vital facts of married life. What can be a more fascinating and instructive story, than the marvel of *Prakruthi* and *Purusha* in its method to assure the continuance of life on earth, and the preservation of species! which is represented as "Swastika"  in Ayurveda?

When a human being, in particular, is not sexually normal, through whatever cause, whether hereditary or acquired, that condition is a serious hindrance to a healthy and a happy life.

Sexual maladies and disabilities may result from many causes, and practically all except those that have been inherited, may be traced to the common source of ignorance. Even many of the inherited afflictions are the results of ignorance on the part of previous generations.

Of course an understanding of sex is essential to a genuine understanding of "Self". How thoroughly we are influenced by the unconscious expressions of our sexual nature as well as, at

times, by the conscious impulses—will be seen as we go on to study in these pages.

Joy, Strength, happiness, livelihood, expansion, wealth, continuation of lineage, fame, future worlds of bliss, happiness hereafter, gratification, all depend on healthy progeny (*Sat Santhaana*).¹

A Man with (Satsanthaanam) Good Progeny.

A man with many healthy children, is like one who has many forms (*Bahu murthih*), one having many faces (*Bahu sugah*), one having many bodies (*Bahu vyuh*), one of great activity (*Bahu kriyah*), one having many eyes (*Bahu chakshuh*), one having vast knowledge and experience, (*Bahu gnaanath*), one having many souls (*Bahu aatma*). A man with good progeny is praised as one who is auspicious (*Bahuprajah mangalyah*), one that is possessed of excellence (*Prasasyah*), one that is deserving of high applause (*Dhanyah*), one having great energy (*Veerya vantah*) and one having many branches (*Bahu saaghoyah*).²

A Man Without Children.

A man who is lonely without healthy children, is a branchless tree (American palm) that is without shadow, and without fruit, and that emits a disagreeable smell. As a lamp with a paint, as a tank without water, as a thing that is not a dhaatu (mineral), looks like a precious mineral, so a man without healthy progeny, may be known as a human figure made of straw (Dummy). A man without children should be regarded as one who has no position, and one who is bare-bodied (*Nagnah*), as one who has only one sense (*Ekendriah*) and one who has no necessity to work.

Although the (*Purusha*) man is the main source of progeny, the best field for action is that woman (*Prakriti*) who fills with Joy, at her very sight the person who intends to use them.³

Selection of Better Half (Field for Action).

A Combination of all the objects of the senses exists in women only. Such a combination does not occur anywhere else. Since

1. 2. 3. Ch. Chi, Chap. 2—21, 19, 16, 48.

each of the desirable object is said to be exceedingly pleasing, what need then, be said of all the objects which exist in a state of combination in the body of woman? That combination which exists in woman, of the objects of senses, is conducive of the greatest pleasure.

In woman is pleasure in especial. Upon women (*Prakriti*) rests offspring. Piety and wealth depend on women. Lakshmi depends on women. All the worlds depend on women. That woman who is exceedingly beautiful, who is in the full vigour of youth, who is adorned with auspicious marks, who is plain, who is educated (in the art of *Kaamasutraas*) beautiful and the rest. These accomplishments of women, from the influence of destiny and also from diverse kinds of food, and enjoyments occurring in this world increase, when they get a congenial male companion (*Purusha*) for sexual congress.⁴

She, who in consequence of her age, beauty, speech, and gestures, is regarded by her husband as the best of her species; she who, through her destiny or her own acts, enters into her husband's heart, and she, who is the feast of her husband's heart, and she, who is of the same temperament of her husband; she who is plaint to her husband's will; she, who gratifies her husband, with all the means of gratification; she who, in consequence of her superior accomplishments enchains (*Paasaabhutaa sarveshaam indri-aanam*) all the senses of her husband; she from whom her husband is separated, he becomes unable to derive pleasure from anything and look upon the whole world as destitute of women. (*Yayaa Viyukto Nastreekam arathir manyathe jagath*). She without whom her husband bears his body, as if it were left of all senses (*Yasyaaruthe sareeram naa dhatte sunyamiva indriyaihi*); she whose sight dispels his grief and anxieties, cheerlessness and fears (*Sokodvegaarath bhyaaihi yaam drushtwaa naabhi bhuyathe*); she in whose company one possesses, his hours in complete trustfulness (*Yaathi yaam praapya visrambham drushtwa hrushyatyaatevayaam*) she whose sight fills him with raptures; she unto whom she goes (in sexual congress) with ever recurring pleasures and downright speed as if unto a charmer

4. Cha. Chi, Chap. 2—4 to 7.

unseen before; she unto whom he enjoys sexual union repeatedly without a feeling of satiety (*Apurvaamiva yaam Yaathiniithyam harsha-athi vegathaha gatwaa gatwaapi bahuso yaam trupthim naiva gacchathi*), such a woman he could select to be his better half.

A healthy man who is desirous of best offspring should, when he is free from all diseases, meet his better half, that belongs to a different gotra (*Atulya gotra*) that is cheerful, that is free from disease and that has purified herself by the prescribed bath after the three days functional flow (*Naanaa bhavaahi maanavaah, atulya gotram vrushyamcha, praharshathaam nirupadravam suddha snaathaam vrajennareem apatyaaardhee niraamayah*).

Of a man of unlike "Gotra" clan, who meets with his wife, what, in truth, if the secretion, composed of four out of the five primal elements, and born of the (*Shadrasaas*) six tastes, which is cast in privacy, after the expiration of the three days menstrual flow, and which develops, when mixed with all the other "Garbha-dhaarana Saamaagri" into conception in women. The wise say that, that secretion of man is called "Sukra" semen. It is sacred for originating conception. It consists of the four primal elements. (*Pancha Bhutas*) *Vaayu, Agni, Bhumis, and Apa* in efficient proportions. It is generated by the six tastes which the man consumes.⁵

Four and Five Factors of Conception.

A co-ordination of the four factors of conception period (*Ritu-Kaala*) healthy womb (*Kshetra Sampat*) nutritional Rasa Dhatu i.e. Chyle of digested food (*Ambu Sampat*) healthy Semen and healthy ovum (*Bija Sampat*) and the proper observance of the rules laid down below is necessary for the conception and development of a healthy child, just as the proper season (*Ritu-Kaala*) good cultivated soil (*Kshetra*) water and good manure (*Ambu*) and vigorous and pure seeds, together with proper care and attention, help the germination of strong and undiseased sprouts.

A child which is derived (fruit) of such conception is destined to be beautiful, of vigorous health, generous, long-lived, virtuous,

5. Cha, Sar, Chap. 2—8 to 15.

attached to the good of its parents and capable of discharging its parental obligations.⁶

That foetus which is endowed with wealth of Semen, of Ovum, of Soul, of Womb and of proper *Kaala* (time) and whose surroundings are limited, with all that is beneficial, attains to happiness and becomes full bodied in time without accidents of any kind.⁷

What is Beejam (Seed)?

It should be understood that in this beejam or seed, are the six and ten elements derived from the juices, the Soul, the mother's ovum and the father's Semen.

Amongst these four are attached to the father's semen; four are attached to the mother's ovum; four are attached to the juice by which Artavam and Semen are born and grow. Four are attached to the Soul. Those four which are derived from the acts and which are adhered to the "Self" enter into the admixture of Semen and Ovum, since the case consisting of four elements (in their subtle form) is endowed with the virtues of a seed. The self going, the subtle case, also enters into diverse bodies.

The soul is all pervading. He is the sustainer of all bodies. He is the creator. He is beyond the ken of the senses. He is always united with desire. He is always united with mind and body.⁸

The specific attributes of the four elements earth, water, heat, and air (space or ether is excluded for, as already explained it is intransmutable and occurs in all substances) are manifest in the substances which are respectively originated from them. The term *Prakrithi* or original nature connotes the eight categories (of *Avyakta, Mahan, Ahamkaara* and the five *tanmaatras*) and the rest of the twenty four fundamental principles are its modifications. The *Purusha* forms the twenty-fifth principle. These twenty-five fundamental principles of cosmogony have been dealt with in this *Kaumaara Bhritya Tantra*.⁹

6. Su. Sar. Cha. 2—

7. 8. Cha. Sar. Cha. 2—

9. Su. Sar. Cha. 1—

unseen before; she unto whom he enjoys sexual union repeatedly without a feeling of satiety (*Apurvaamiva yaam Yaathinithyam harsha-athi vegathaha gatwaa gatwaapi bahuso yaam trupthim naiva gacchathi*), such a woman he could select to be his better half.

A healthy man who is desirous of best offspring should, when he is free from all diseases, meet his better half, that belongs to a different gotra (*Atulya gotra*) that is cheerful, that is free from disease and that has purified herself by the prescribed bath after the three days functional flow (*Naanaa bhavaahi maanavaah, atulya gotram vrushyamcha, praharshathaam nirupadravam suddha snaathaam vrajennareem apatyaaardhee niraamayah*).

Of a man of unlike "Gotra" clan, who meets with his wife, what, in truth, if the secretion, composed of four out of the five primal elements, and born of the (*Shadrasaas*) six tastes, which is cast in privacy, after the expiration of the three days menstrual flow, and which develops, when mixed with all the other "Garbha-dhaarana Saamaagri" into conception in women. The wise say that, that secretion of man is called "Sukra" semen. It is sacred for originating conception. It consists of the four primal elements. (*Pancha Bhutas*) *Vaayu, Agni, Bhumi*, and *Apa* in efficient proportions. It is generated by the six tastes which the man consumes.⁵

Four and Five Factors of Conception.

A co-ordination of the four factors of conception period (*Ritu-Kaala*) healthy womb (*Kshetra Sampat*) nutritional Rasa Dhatu i.e. Chyle of digested food (*Ambu Sampat*) healthy Semen and healthy ovum (*Bija Sampat*) and the proper observance of the rules laid down below is necessary for the conception and development of a healthy child, just as the proper season (*Ritu-Kaala*) good cultivated soil (*Kshetra*) water and good manure (*Ambu*) and vigorous and pure seeds, together with proper care and attention, help the germination of strong and undiseased sprouts.

A child which is derived (fruit) of such conception is destined to be beautiful, of vigorous health, generous, long-lived, virtuous,

5. Cha, Sar. Chap. 2-8 to 15.

attached to the good of its parents and capable of discharging its parental obligations.⁶

That foetus which is endued with wealth of Semen, of Ovum, of Soul, of Womb and of proper *Kaala* (time) and whose surroundings are limited, with all that is beneficial, attains to happiness and becomes full bodied in time without accidents of any kind.⁷

What is Beejam (Seed)?

It should be understood that in this beejam or seed, are the six and ten elements derived from the juices, the Soul, the mother's ovum and the father's Semen.

Amongst these four are attached to the father's semen; four are attached to the mother's ovum; four are attached to the juice by which Artavam and Semen are born and grow. Four are attached to the Soul. Those four which are derived from the acts and which are adhered to the "Self" enter into the admixture of Semen and Ovum, since the case consisting of four elements (in their subtle form) is endued with the virtues of a seed. The self going, the subtle case, also enters into diverse bodies.

The soul is all pervading. He is the sustainer of all bodies. He is the creator. He is beyond the ken of the senses. He is always united with desire. He is always united with mind and body.⁸

The specific attributes of the four elements earth, water, heat, and air (space or ether is excluded for, as already explained it is intransmutable and occurs in all substances) are manifest in the substances which are respectively originated from them. The term *Prakrithi* or original nature connotes the eight categories (of *Avyakta, Mahan, Ahamkaara* and the five *tanmaatras*) and the rest of the twenty four fundamental principles are its modifications. The *Purusha* forms the twenty-fifth principle. These twenty-five fundamental principles of cosmogony have been dealt with in this *Kaumaara Bhritya Tantra*.⁹

6. Su. Sar. Cha. 2—

7. 8. Cha. Sar. Cha. 2—

9. Su. Sar. Cha. 1—

It is well-known that the form (*Murthi*) of the four elements which are derived from the acts of previous lives give form (*Murthi*) to the foetus; from the mind (*Manas*) (of the being as existing in a previous life) is the especial form of the mind to the foetus. Those distinctions which occur as regards features and understanding have *Rajas* and *Tamas* and acts as their cause.¹⁰

Pure Semen (*Suddha Sukra Lakshanam*).

Of Him, of Universe form (*Viswa-Rupa*), who moves about in the body, the semen, is said to be the material form, (*Charatho Viswarupasya rupadravyam Yaduchyate*). That Semen which is thick, sweet and oily, which has not the scent of raw meat or fish, which is heavy and slimy, which is white, and copious in quantity, is without any doubt, fruitful.

As juice in the sugar-cane, ghee in curd, and oil in sesame seeds, even so does the semen, reside everywhere in the body, in the sense of touch. Like water issuing from a piece of wet-cloth, the semen issues out of its seat, in consequence of sexual intercourse with woman, owing to exertion of the body (*Chesta*), desire in the mind (*Sankalpa*) and pressure of sexual organ Penis (*Peedana*).

Through gladness, through desire, in consequence also, of its sliminess, of its heaviness, of its downward motion, which *Vaayu* (*Apaana*) is endued with, for these eight reasons, the "Semen" escapes from the body.¹¹

Why Semen is not found in Children?

It may be asked, how is it, that semen is not found in an infant? Since perfume in a flower bud is imperceptible to the organ of smell, you may as well ask whether there is any perfume in it or not. But what does not exist in a thing cannot be evoked in the subsequent course of its development. As the perfume in a flower-bud lies latent in its early stage of growth, but becomes patent only with the growth of seeds & organs of reproduction, so semen or ovum, lies in a potential state in a male or a female child, and appears with the growth of beards and mostaches in

10. Cha. Sar. Chap. 2—

11. Cha. Chi. Chap. 2—46 to 50.

the male and with the enlargement of breasts, uterus, vaginal canal in the female and the appearance of pubic hair in both male and female child.¹²

As the fragrance of a flower is not perceived during its stage of a bud, but perceivable only when it blooms, even so, is the case with the semen of embodied persons. Therefore, one should not, before one is sixteen years of age, approach a woman for sexual congress.

A person of immature age and therefore, of "*Dhaatus*", not all complete and mature by indulging in sexual congress, soon becomes dry, even as a lake with little water, very soon becomes dry. Such immature semen is not fit for healthy conception.¹³

The Development of *Sukra Dhaatu* (Semen).

From the oily matter proceeding from the marrow (*Majja-dhaatu*) is born the vital seed (*Sukra Dhaatu*). From the condition of there being air (*Vaayu*) ether and the rest, perforations take place in the bones (*Asthi Dhaatu*). Through these perforations the vital seed is emitted, like water, through a new earthen jar. Impelled by pleasure of the sexual congress with the female, and obtaining an impetus from lustful desire born in the mind, the vital seed, collected together, and born through the seed bearing ducts (*Sukravaha Srothas*), escapes from the body. Melting like ghee, through the heat produced by sexual exertion, and falling from its own place, it becomes collected in the region of testicles, whence it escapes like water, from a higher to a lower level.¹⁴

The *Rasa Dhaatu* (Lymph Chyle) is successively transformed into each of the six remaining fundamental principles of the body, and continues in the shape of each for the period of three thousand and fifteen *Kaalaas* (Five days). Thus the *Rasa Dhaatu* is converted into semen in men, and into ovum in women in the course of a month. (a month is calculated to consist of eighteen thousand and ninety *Kaalaas*).

The *Rasa Dhaatu* courses through the whole body in invisible currents of Zig Zag shape, like the waves of sound, in an upward

12. Su. Su. Cha. 14—18.

13. Cha. Chi. Cha. 2—

14. Cha. Chi. Ch. 15—32 to 35.

direction like the flames of fire, or in the downward direction like rivulets of water.

Now, it may be asked, since the rasa dhaatu is naturally transformed into semen, in the course of a month, what is the use of an aphrodisiac medicine to stimulate and give an immediate effect. The medicines out of their own specific potencies and virtue, help the speedy conversion of RASA, into Semen and profuse emission like Purgative aiding the drastic evacuation of the bowels.¹⁵ (*Shadbhihi kechidahoraatrihi Icchanti parivartanam, Santhatyaa bhopya dhaatunaam parivruttisthu chakravat*).

Those articles which are called as "Vrishya" and the rest, speedily increase strength. Some are of opinion that the transformation of one dhaatu into another takes place in six days and nights. Of food and the "Dhaatu" this transformation goes on eternally like a wheel. (The reference to the motion of a wheel implies that the process goes on eternally so that transformation of one dhaatu into another does not extinguish "the transformed dhaatu for there is a constant supply").¹⁶

Methods by which a man, having acquired strength to the body and so to the seed, may be able to approach women as often as he may wish, and soon be get a numerous and healthy progeny shall now be explained.

All men endowed with bodily strength are not necessarily fathers of many children. Again men with ample proportion of limbs and strength are seldom able to show their strength in sexual congress. It is seen again, that men of weak, or unenduring physical bodies are strong in sexual act, and possessed of many children. Some, again are by nature weak (Congenital) in the sexual act. Some also, become weak by some ailments. Some men are seen to approach many women with the energy of sparrows (*Chataaka*). Some again, are to be seen, who without being able to approach many, inject their semen into the woman of their choice, like an elephant. Some in consequence of circumstances that excite desire, approach women. Some in consequence of strength giving food and drink are able to approach women. Some

15. Cha. Chi. Cha. 15—20, 21.

are able to approach women in consequence of especial efforts. Some have the power naturally.¹⁷

Rubbing the body with oils (*Abhyangam*) and applying turmeric and mudga, sanaka etc., powder, paste (*Udwardanam*), washing the body with water (*Snaanam*), use of fragrant unguents (*Gandham*) wearing of floral garlands (*Pushpa Maala*), and ornaments (*Aabharaanas*), comfortable chambers (*Griha*) beds (*Sayya*) and seats (*Aasanaas*) untorn and agreeable garments (*Sughihi yasobhirahathaihi priaihi*) melodious warble of winged songsters (*Vihangaanaam ruthirishitihi*), the sounds of ornaments worn by women (*Sttreenaam chaabharana dhwanihi*) and champooing of body by beloved women (*Samvaadhanairvara sthreenaam Ishtaanam cha*), through these one obtains energy for sexual intercourse.¹⁸

Whatever things may be agreeable to one's mind such as delightful woods and gardens (*Ramyaa vanaantaaha*), banks of rivers and lakes (*Pulinaani sailaaha*) hills and mountains, agreeable and beloved women (*Ishtaaha sthriyoh*) ornaments, perfumes and floral garlands (*Bhushana gandhamaalyam*) and beloved friends and companions (*Priyaa vayasyaascha tadatra yogya*) enable one to indulge in sexual congress.¹⁹

They that are of the same occupation, they that are crowned with success in the sexual act, they that follow one another (cherish the same opinions) they that are skilled in music and pastimes of diverse kinds, they that are of equal minds and age, they that are possessed of respectability of birth, liberality, good behaviour, and purity of conduct, they that are endured with desire for women, they that are always cheerful, they that are free from sorrow of every kind, they that are free from anxiety of every kind, they that are of equal conduct, they that are attached to one another, they that are beloved, they that are of sweet speech, with such companions if one associates freely, one becomes endued with energy for sexual congress.²⁰

Various kinds of nutritious and palatable food and sweet liquid cordial, speech that gladdens the ears, and touch which seems delicious to the skin, clear nights mellowed by the beams of the

17. 18. 19. 20. Cha. Chi. Ch. 2 (4)—3 to 5.

full moon and damsels young, beautiful and gay, delectable songs that charm the soul and captivate the mind, use of the betel leaves, wine and gardens of sweet-scented flowers, and a merry careless heart, these are the best means to increase sexual pleasure.²¹

Receptacles of water adorned with lotuses, and haunted by excited bees, chambers perfumed with flowers of *Jasminum grandiflorum* and those *Nilumbium Speciosum*, and rendered cool by means of sandal paste, and springs of fragrant water, rivers with foaming water, hills and mountans having blue valleys and table lands.

The rise of blue clouds, nights rendered delightful by moon-rise, soft breezes charged with the perfumes of a hundred lotuses, nights especially adopted in indulgence in sexual pleasure, pots left of preceptors, and seniors, diverse aids to cheerfulness, blossoming woods and groves resounding with the notes of *Kokila* abounding with choice edibles and drinks, mellifluous with music and fragrant with floral wreaths, a heart elated with joy, and utterly free from anxiety of every kind, accomplishment of all purposes cherished, ungratified desire, and beautiful women,—all these are the weapons of the deity of desire (*Kandarpa* or *Kaama* or *Aatmabhu* or *Manobhu*).

All these, as also youth, and that season of the year which is exciting (*Vasantha*) are the highest sources of pleasure open to men.

A young man who takes and drinks every day ghee and milk, who indulges in sexual pleasure every day, and who cherishes voluptuous thoughts, succeeds in approaching his wife like a bovine bull.

The milk of a Cow that is fed with the leaves of *Masha Parni* (*Phaseolus radiatus*) that has calved for the first time, that is healthy and plump, that has four teats in her udders, that has her calf living and of the same colour with, that is either red or white or black in colour, that has horns rising perpendicularly, that is mild of temper, that eats sugarcane, as also of *Arjuna* (*Petaptna* *Arjuna*) and that yields thick-milk should be drunk by intelligent

21. Su. Chi. Cha. 21.

men. The milk should be drunk raw or boiled, with sugar, and honey, and ghee mixed with it.

A person who desires an inexhaustible stock of semen, should drink, milk boiled with drugs which prolong life also milk boiled with drugs which promote nutrition, increase the measure of semen, also milk boiled with drugs which increase corpulency; and also milk boiled with drugs which increase breast-milk.²²

Cheerfulness is dependent upon strength of both physical and mental body. The power of sexual intercourse depends upon cheerfulness. The above measures should be taken in sound health and proper seasons as they are exhilarating and invigorating and help the procreation of children.

Why the Semen gets exhausted ?

The semen gets exhausted, in consequence of old age, of anxiety, of diseases, of the fatigue which toil brings, of fasts or absence of food, and of excessive indulgence in sexual act. Through waste of *Dhaatus* through fear, through modesty, through grief, through disgust for the faults on the part of the woman, through absence on the part of the woman of proper accomplishments, through incantations, through continued abstention from sexual congress and through the satiety of over indulgence semen becomes exhausted.²³

A cessation of the sexual desire owing to the rising of bitter thoughts of recollection in the mind of a man, or a forced intercourse with a disagreeable woman illustrates an instance of Mental impotency. Excessive use of articles of Pungent (*Katu*) acid (*Aaamla*) or Saline (*Lavana*) taste or of heat making (*Ushna* *Veerya*) articles of fare leads to the loss of *Saumya Dhaatn* of the organism. This is another kind of impotency. Virile impotency resulting from the loss of semen, in persons addicted to excessive sexual indulgence without taking any aphrodisiac is the merit form of virile impotency. A long-standing disease of the male generative organ, or destruction of a local marma, destroys the power of coition altogether. This is the fourth form of impotency. Sexual

22. Cha. Chi. Chap. 2-3.

23. Cha. Chi. Chap. 4.

incapacity from the very birth is called (*Sahaja*) the Congenital impotency.

Voluntary suppression of the sexual desire by a strong man observing perfect continence, or through utter apathy produces a hardness of the spermatic fluid, and is the cause of the sixth form of virile impotency. Of the six foregoing types of impotency, the congenital form as well as the one due to the destruction of any local *marma* should be regarded as incurable, the rest being curable and amenable to the measures and remedies antidotal to their respective ordinating causes.²⁴

Deformity invades those limbs in whose portion of the seed, or in any portion of the male seed the faults become excited. In consequence of defects in the father's semen, deformities appear in those limbs of the child. When again that portion of the father's semen, from which the child's semen is generated, becomes vitiated, then he begets a son who becomes incapable of begetting living children. When that portion, which generates semen in the child, of the father's semen occurring in the seed; as also that portion of the seed which generates the signs of masculinity, both become vitiated, then the father begets a child, who without being of the masculine sex has the signs of masculinity predominating in him. Such a child is called by the name of TRINAPULIKA. He is regarded as a caricature of masculinity.²⁵

A DWIRETAS (Double seeded) is born of seed that consists of male and female portions of the seed in equal measures or of semen whose reproductive power has been burnt up. The *Vaayu* destroying the organism which contains the semen, of the foetus in the womb begets the variety of impotence which is called PAVANENDRI-YATWAM. The *Vaayu* grinding the outlet of the organism, containing the semen, generates that class of impotent person who is called SAMSKAARA VAHIN. Parents emitting seed (*Bija* of Semen and Ovum), that is not possessed of vigour and that is very small in measure, parents that are weak, or those that are cheerless at the time of procreation, or those whose seed is sterile (*Manda Veerya*) is the cause of the defective NARA SHANDA. Through the unwilling-

24. Su. Chi. Cha. 26-3.

25. Cha. Sar. Chap. 4-42.

ness of the mother for the sexual intercourse and the weakness of the father's semen, a VAKRI is generated. It is said that the cause of an *Irshyaarati* (otherwise called *Irshyaabhirati* or *Irshaka*) is a couple, any individual of which is under the influence of malice or a couple that is cheerless at the time of procreation. He whose testicles have been destroyed through vitiated *Vaayu* and digestive fire, is called VAATIKA SHANDA. Even these are eight varieties of individuals of defective organisms noticeable due to the evil actions of past lives.²⁶

"*Sukraavhaanaam srothasaam vrushanam mulam sephascha*". The *Srotasaas* (ducts) that bear semen are the two testicles and the spermatic cords and the organ of the male penis, with its glans penis.²⁷

Kleebatwam (VARIETIES OF IMPOTENCE).

From faults of the Vital Seed (*Beejopaghaataat*), as also of the male organ, not attaining the required erectile rigidity from advanced age, and from loss of the vital seed, Impotence arises.

General Symptoms.

Though always cherishing a strong desire for sexual congress and though possessing a beloved, beautiful and obedient wife, yet one is unable, through loss of turgidity of one's organ, to indulge in sexual union, or indulges in it very rarely.

Breathing hard, perspiring copiously, resolve and efforts frustrated, the organ never attaining to the requisite degree of turgidity, and absence of discharge—these are the symptoms of Impotence. These are regarded as the general symptoms characterising the four varieties of Impotence.

Hethu and Symptoms in Bijaapaghaataja Klilyam.

Through food and drink that are cold or dry or insufficient, or mixed with filth, or consisting of inharmonious ingredients, or incapable of being assimilated; through grief or anxiety or alarm or fear, through excessive indulgence in woman, through incanta-

26. Cha. Sar. Chap. 2-17 to 20.

27. Su. Sar. Chap. 9-22.

tions; through absence of affection for the woman with whom one indulges in sexual union; through loss of *Rasa* and the other *dhaatus* of the body; through inequality of *Vaayu* and the other faults in the constitution, through abstinence from food and drink; through fatigue and tiresome labour; through disrelish for sexual enjoyment of women, through injudicious administration of the five operations (*Pancha Karmas*); there is developed a disease of the Vital seed.

Thence one becomes weak and of a pale complexion. Through these causes a person's strength diminishes. Indeed, having become weak, his desire is never strong for the companionship of women (*Alpaarsha pramadaasu*) he begets few children (*Alpapraja*). He becomes afflicted with heart disease, chlorosis, anaemia, *Tamaka swaasa*, vomiting and diarrhoea, *Sula*, cough, and fever, also afflict him. These are the symptoms of the impotence due to the defects of the Vital Seed (SEMEN.)

Nidaana of Dwajabhanga.

(*Dhwajabhanga*—INCAPACITY FOR ERECTION).

Through indulgence in food and drink that are exceedingly sour, or saline or alkaline or consisting of inharmonious or indigestible (*Ajeernabhojana*) ingredients, through drinking water in excessive measure, or untimely eating, or eating cakes and heavy food in excessive measure; through excessive indulgence in curds, milk, and the flesh of animals living in marshy regions (*Anupadesa*), through emaciation and weakness induced by diseases; through indulgence in sexual union with young girls not attaining puberty; through carnal copulation against nature (Hand and others *Ayoni*) through sexual congress with a female who has not been used for sexual purpose for a long time, or one during the period of menstruation (*Rajaswalaam*), or one who has a fetid smell (*Durgandhaam*) in one's organ, or with one whose organ is vitiated by diseases (*Toni Vyaapat*) or one from whose organ of generation foetid discharges take place, indeed through indulging in sexual congress, with such women from excitement of lust (*Pramadaam mokaat yo gacheyet Kaamahars-hitah*) through indulgence in sexual union with beasts (*Chathushapadaabhogimanaath*), through wounds on the male organ (*Sephasascha abhigataatah*); through neglect to wash the organ properly (*Adhaa-*

vanaah); through sores etc. on the male organ due to injuries inflicted with weapons, teeth, and nails (*Medrasya sasthan danta nagha kshattath*); through bruises on the male organ, caused by strokes of wooden sticks (*Kaashta praharsha nishpeshaat*); through excessive use of *Sukaas* (*Sukaanaam eha athisevanaath*) and obstruction of semen in course of its emission (*Rethasascha Prathighathaath*) the variety called '*Dhwaja Bhanga*' (the loss of the power of the erectile tissue of the male organ) arises.

Symptoms of Dhwajabhanga.

Swelling, pain, and redness appear in the male organ. Painful abscesses also manifest themselves. Inflammation sets in and the entire organ is sometimes seen to suppurate. Increase of flesh (*Arbuda*) takes place, and pimples quickly arise. Discharges take place that are of a dark-red hue like the colour of water in which paddy has been soaked (*Pulaakodaka sankasah sravaah*); rings and wrinkles appear on the organ, and it feels hard when held. Fever, thirst, vertigo, swoons, vomiting and asthma also set in. Discharges of blood take place that is of a red and dark colour, or blue, or darty-red. A very painful burning sensation is felt, as if the parts are being burnt by fire, in the pubic region, the testicles, the sutures, and the groins. Some times discharges take place, that are slimy and of a pale colour. Sometimes swellings appear, that are mild and without sensation and from which scanty secretions flow. Inflammation and suppuration take place after some time but are cured quickly. Worms are generated, filthy secretions flow and a foetid odour also appears. The glans penis (*Mani*) the entire male organ (*Meddram*) or the testicles (*Mushkam*) are seen to become dried up (secretions) or withered or atrophied. These are the symptoms of impotence caused by *Dhwajabhanga*. Some say that *Dhwajabhanga* is of five Varieties²⁸

Impotence which arises due to (*Jaraa sambhavam*) old age.

Nidaana: Man's age (*Vayas*) is divided into three parts i.e., the prime of life, the middle portion and old age (*Jaghanya Madhya Pravaram vayahtrividham*). The semen of human beings in general,

28. Cha. Chi. Chap. 30—156 to 164.

when they grow old, decreases due to decrease of the *Rasa Dhaatu* and the others; also by the non-use of "*Vajeekarana*" remedies. Through the gradual decrease of strength, energy, and the senses, as also to the decrease of the period of life to be lived still, of the decrease of the measure of food taken, and of the capacity for *Vyaayaam*, and exertion; through these causes arises that form of impotence of human beings, which is distinguished, as born of decrepitude.

Symptoms: A person soon becomes weak and his "*Sukra dhaatu*" wastes away. His complexion becomes pale; he becomes overwhelmed with grief. Cheerlessness seizes him; and he quickly becomes the victim of disease.²⁹

Impotence due to waste or abuse (*Sukra kshayajam*).

Nidaana: Of that man who suffers himself to be troubled by envy, disquietude, and anxiety, of one who constantly brood (*Manah Kshobha*) or indulges in grief, wrath and fear (*Soka, Krodha, Bhaya*); of that person who, though emaciated and weak, indulges in dry food and drink (unoily) that are dry and medicines of the same nature; and who being of a weak constitution, abstains from food (*Nirahaarobhavet*) of one who takes food and drink that are not *Saatmyam* or *Alpam*, the principal *dhaatu* called "*Rasa*" seated in his heart, is quickly wasted up. In consequence of this, the other *dhaatus viz*, blood and the rest, ending with the Semen, also suffer diminution and waste, *i. e.* blood is first wasted, and gradually the other *dhaatus* are attacked and last of all the *Sukra* or semen. Of all the *dhaatus* the vital seed or Semen is regarded the fore most seat of Potency. Verily, of one who through excessive cheerfulness indulges excessively in sexual Congress, the vital seed is quickly wasted. In consequence of this, the entire body of such a person also wastes away. When this "*Vital dhaatu*" wastes away, the person himself becomes weak and emaciated. He becomes afflicted with dreadful diseases, or meets with death. Hence one who is desirous of keeping health, should always protect one's vital seed with great care, (*Sukramthasmaadwishesena rakshya maarogya micchatha*).³⁰

29. Cha. Chi. Chap. 179 to 182.

30. Cha. Chi. Chap. 186 to 189.

Prognosis.

Some say that two of these varieties, *Viz.*, that born of *Dhwaja bhanga* and that born of waste are incurable.

Impotence also arises from one's male organ being cut off or one's testicles being taken out (removed) *Sephasaschedasi vrishanotanenacha*.

Sometimes it arises from the defects of the seed of one's parents. Owing to the bad acts of a person of impure Soul (*Maathaapittorbeeja doshaat asubhisehaakritaatanah*); while he is in the mother's womb his seed bearing ducts are afflicted by the three *doshaas*, with the result, that those are quickly dried up *i. e.*, there is atrophy of the ducts and cells. In consequence of this, his seed itself is afflicted and such a person, though born with every limb in a state of development and completion, is a man without manliness or Virility *i. e.*, born without potency. In consequence of these varieties of impotence being due to the simultaneous excitement of the three *doshaas*, they are incurable.

Treatment in brief of Impotency.

Those medicines that are used for correcting the faults of semen should be applied for alleviating impotence. Those medicines also which are beneficial in *Kshtha ksheena* should be administered for the alleviation of impotence. Those enemata, preparations of milk, and ghee, and aphrodisiacs and *Raasaayanaas*, which are approved, should be administered, by a physician, who is conversant with strength, medicines, consideration of time, after the examination of the body, the fault or faults excited, and strength of the digestive fire.

One should treat that impotence which arises from excessive indulgence in sexual congress *i. e.*, which is born of the waste of the *Dhaatus* by the adoption of the methods which are antagonistic to its cause. But in that variety of impotence known as "*Abhicharaja*" or due to hostile incantations, medicines which depend on the dieties *i. e.*, "*Daivavyapaassraya*" and "*Tukthi - Vyapaassraya*", should be had recourse to.

Treatment in detail (Viśeṣa) of Impotence.

After rubbing the patient properly with oil (*sneha*) and administering "*Sweda*" to him the physician should give him purgatives mixed with oils. He should then be made to take rice for his food that contains ghee and oil, or he should be administered a dry "*Aasthaapana*" enemata. The physician possessed of intelligence, should then administer to him "*Anuwaasana*" or oily enema. Once more should "*Asthapana*" enema, consisting of the paste of *Palaasa* (*Buteafrondosa*) the roots of *Eranda* (*Ricinus Communis*) with *Musta* (the tubers of *Cyperus rotundus*) and the rest be administered. And all those combinations of drugs also that have been laid down for "*Vaaji Karana*", are to be prescribed, in cases of impotence born of the disease or defect of the Vital Seed.

Treatment of Impotence due to Dhvajabhanga.

Having ascertained that the impotence is born of Dhvajabhanga, he should adopt the following methods of treatment. He should prescribe the application of plasters; sprinkling of medicated liquids; and blood-letting. He should cause the patient to drink, ghees and oils (medicated) and administer oily purgatives. He should administer enema both dry and oily. He, who is experienced should also adopt all those methods which have been laid down for the treatment of *Vidradhi* and *Suka* (sores and abscesses).

Treatment of Impotence due to senile decay and waste. (*Jaraasambhavaja*)

In impotence caused by old age, as also in that born of the waste of *Sukra dhaatu*, the correction of the patient's constitution by administration of oily correctives, after having administered to him, *Sneha* and *Swada* is beneficial and should be had recourse to.

Milk, ghee, and those composition of drugs, which are possessed of aphrodisiac virtues, as also those varieties of enemata which are called *Taapana*, and all those combinations which are "*Rasaayanaas*" are regarded as beneficial remedies for both these varieties of Impotence.³¹

31. Cha. Chi. Chap. 30.

Various Vaajikarana Remedies of sexual incapacity.

Powders of Sesamum, *Masha*, *Vidaari*, or *Sali* rice should be mixed with *Saindhava Salt* and pasted with a copious quantity of the expressed juice of sugar-cane, of the *Paundarika* species. It should then be mixed with hog's lard and *utkaarika* should be prepared by cooking it with clarified butter. By using this *utkaarika*, a man would be able to visit a hundred women.

The testis of a he-goat, should be boiled in milk, sesame seeds should then be successively treated with this milk in the manner of a *Bhaavana*. Cakes should be made of these sesame seeds with the lard of a porpoise. This medicine exerts the same action as the preceding one, without producing any exertion whatever. By eating the testis of a he-goat with salt and powdered long pepper, fried in clarified butter prepared from churning milk, a man is enabled to visit a hundred women.

Powders of *Pippali*, *Masha* pulse, *Sali*-rice, wheat and barley, should be taken in equal parts. Cakes (*Pupaalikaa*) should be prepared with this compound and fried in clarified butter. By taking these cakes and a potion of milk sweetened with sugar, a man becomes potent enough, to enjoy the pleasures of love, like a sparrow (*Chataaka*).

Powdered *Vidaari* successively soaked in the expressed juice of the same and dried, should be licked with honey and clarified butter whereby a man would be able to visit ten women successively. Similarly, powders of *Aamalaka* soaked successively in its own expressed juice should be licked with honey, sugar and clarified butter, after which a quantity of milk should be taken. This compound would make even an old man of eighty sexually as vigorous as a youth.

Clarified butter should be boiled with eggs or the testes of alligators, mice, frogs and sparrows. By lubricating the soles of the feet with this *Ghrīta*, a man would be able to visit a woman with undiminished vigour so long as he would not touch the ground with his feet.

The use of pulverised *Aatma-Gupta* and *Ikshuraka* seeds mixed with sugar and taken with milk just milched, enables a man to indulge in the pleasures of youth for the whole night without any sense of fatigue.

The powders of the *Uchchataa* should also be taken similarly. *Sataavari* and *Uchchataa* roots should also be similarly taken by a man wishing to have vigour.

All kinds of meat and milk, as well as the drugs of the *Kakol-yaadi* group should be regarded as being highly possessed of the virtue of imparting tone and vigour to the male organ, and they should therefore, be taken. The medicinal remedies and compounds described in the above treatment, should be taken in sound health and proper seasons, as they are exhilarating and invigorating and help the procreation of children.³²

Etiology and symptoms of eight defects of Vitiated Semen.

Sukradhara Kala: The semen bearing *Kalaa*, extends throughout the entire body of all living creatures. The physician should know that like fat (ghee) in milk, sugar in the expressed juice of sugar-cane, the semen is co-extensive with the whole organism of a man. The semen passes through the ducts situated about two fingers breadth on either side and just below the neck of the bladder and finally flows out through the canal. The semen of a man during an act of sexual intercourse with a female under exhilaration comes down from all parts of his body owing to the extreme excitement.³³ The two semen carrying *Srotas* have their roots in the breasts in females and in the testes in males. An injury to any of them leads to loss of manhood, delayed emission of semen, or blood-streaked character of that fluid.³⁴

As seeds (of vegetable kingdom), when vitiated by unseasonable showers (*Akaalaja ambu*) and worms and insects and fire do not put forth sprouts, even so the seeds of animals, when vitiated by the *doshaas*, do not prove to be productive.³⁵

32. Su. Chi. Chap. 26.

34. Su. Sar. Chap. 9.

33. Su. Sar. Chap. 4.

35. Ch. Chi. Chap. 20.

A man is incapable of begetting children, whose seminal fluid affected by the aggravated *Vaayu*, *Pitta* or *Kapha*, emits a cadaverous smell, or has acquired a clotted or shreddy character, or which looks like putrid pus, or has become thin, or smells like urine or stool.³⁶

Eight defects of Semen are frothy (*Phenilam*), thin (*Tanu*), unoily (*Ruksham*), slimy (*Pichchila*) mixed with some other dhaatu (*Anyadhaatupasamarushtam*) and divested of energy (*Avasaadi*).

Causes of Disorders.

Through excessive indulgence in sexual intercourse or physical exercise; in consequence of indulgence in food and drink that are unoily; or bitter, or astringent, or excessively saline, or sour or hot; in consequence of indulgence in articles of food and drink to which one is not accustomed; in consequence of one's indulgence in sexual congress at improper times or of unnatural intercourse or of total abstinence from intercourse; in consequence of intercourse with woman who feels no zest; (*Naareenaa marasagnaa-naam*); oozing (*Sraavanaath*) old age; (*Jaraya*) in consequence of anxiety or grief (*Chinta Sokaadavisrambhaat*); injury to the male organ from improper application of lancet or caustic, and of cautery (*Sastrakshaaraagni vibharamaath*); in consequence of fear, or wrath, or looseness of motion (*Bhayaat Krodhadabheechaaraath athisaarath*) or of one's suffering from disease for a very long time (*Vyadhibhih Karasthasyascha*); in consequence of emission on being suppressed (*Vegaghaataat*); of blows to the organ (*Kshathaath*) and vitiation of *Sapta dhaatus* (*Dhaatunaam Sampra dushannath*); the three doshaas either individually or collectively, overtaking the seed bearing ducts, speedily vitiate the semen of a person.

Vaata vitiated Semen.

When afflicted by *Vaayu*, the vitiated seed becomes frothy, thin and unoily; it is discharged also with difficulty. Such semen is incapable of producing conception (*Charaka*).

36. Su. Sarcera - Chap. 2-2.

Semen vitiated by the deranged *Vaayu*, acquires a reddish-black colour and gives rise to a sort of pain, which characterises the *Vaayu* (Susruta).

Pitta vitiated semen.

When afflicted by the *Pitta*, the semen becomes either blue, or yellow in colour. Its smell becomes foetid, and it becomes so hot that in its passage through the organ burning sensation is felt. (Cha. Chi.)

Similarly semen deranged by the *Pitta*, gets a yellow or bluish colour and produces the specific pain of the deranged *Pitta* (Su. Sar.)

Kapha vitiated semen.

The vital seed having its passage obstructed through *Kapha* becomes exceedingly slimy (Cha. Chi.).

Semen vitiated by the action of the deranged *Kapha* has a white colour and produces pain peculiar to the deranged *Kapha*. (Su. Sar.)

Rakta vitiated semen.

The semen vitiated by blood (*Rakta*) is tinged with a bloody hue, produces all kinds of pain peculiar to the deranged *sonitha*. The semen smells like a putrid corpse and is emitted in large quantities.

Semen vitiated by Vaayu and Kapha.

The shreddy or clotted character of the fluid (*Granthila*) should be ascribed to the action of the deranged *Vaayu* and *Kapham*.

Semen vitiated by Vaayu and Pitta.

Thin semen is caused by the deranged *Vayu* and *Pitta*.

Semen vitiated by Pitta and Kapha.

If vitiated by *Pitta* and *Kapha* it looks like putrid pus.

Semen deranged by Vaayu, Pitta and Kapha.

Here the three doshaas vitiate, and causes the semen to smell like urine or fecal matter (stool).

Abhicharaja Disorder of Semen.

Through excessive indulgence in sexual congress, wounds in male organ, and sores in its passage, the person's semen which is discharged, is generally seen to be mixed with blood.

Avasaadi Disorder of Semen.

Through suppression of urgings of nature of semen; abstention from sexual intercourse or checking the discharge from desire of prolonging the pleasure of intercourse, and when semen is obstructed in its course by the *Vaayu*, the vital seed is discharged in a knotty flow (*Kriccharena*).

Prognosis.

Of these the cadaverously smelling, shreddy and clotted, putrid pus like, and thinned semen can be remedied and corrected only with the greatest difficulty; while the one, having the smell of stool or urine should be regarded as beyond cure, the remaining kinds are curable.³⁷

Treatment.

As long as the vital-seed is vitiated, so long should it be treated with all those agreeable and beneficial methods which have been laid down in *Vaajikarana Chikitsa*, as also with all the combinations of drugs which are alleviative of *Rakta-Pitta*; and those other combinations which have been laid down for the treatment of *Yoni Vyaapat*.

The ghee called *Jivaniya* as also *Chyavanaprasa* and the administration of *Silaajit*, cure the faults of the vital-seed.

When the vital seed is afflicted, by the excited *Vaayu*, enemas (both *niruha* and *anuvasana*) are beneficial.

The Rasaayana called "*Abhayaamalaki*" (*Chyavanaprasa*) is useful in cases where *Pitta* is excited.

The Rasaayana called *Maagadhi* (*Pippali*) *Amritaloha*, *Triphala*, *Bhallataka*, kill those faults of the vital seed which arise from excited *Kapha*.

³⁷. Su. Sar. Chap. II.

When the physician sees that the vital-seed is afflicted by any other dhaatu, he should administer such medicines as are capable of correcting the particular fault that has been excited and the particular *dhaatu* that afflicts the vital-seed.

Ghee, milk, meat-juices, *sali*-rice, barley, wheat and *Shashtika*-rice, are beneficial in treating the faults of the vital-seed. The administration of enema is especially beneficial.³⁸

The first three types (*i.e.*, arising from Vaayu, Pitta and Kapha) of seminal derangements, should be corrected, by an intelligent physician, with an application of medicated oil etc. (*Sneha-Karma*), diaphoretic measures etc. (*Sweda-Karma*) or urethral injections (*Uttara-Vasti*).

A medicated "*Ghritha*" prepared with a decoction of *Dhaataki* flowers, *Khadira*, *Daadima* and *Arjuna* barks, should be given to drink, to a man, whose semen emits, a cadaverous smell (*Kunapa*). As an alternative, a medicated *ghrita* prepared with a decoction of the drugs forming the *Saalasaraadigana*³⁹ should be given to him. In a case of clotted and shreddy (*Grandhi*) semen, the patient should be made to drink a medicated *ghrita*, prepared with a decoction of *Sathi* or with an alkaline solution prepared from the ashes of the burnt *Palaash* wood.

In the case of a pus-like appearance of semen the patient should be treated with the medicated *ghrita*, prepared with the drugs included within the groups of *Parushakaadi*⁴⁰ and *Vataadi* (*Nyugro-dhaadi ganas*)⁴¹

38. Cha. Chi. Chap. 30.

39. Saalasaa, Raahjakarna, Khadira, Kadara, Kaala, Skangha, Kramuka, Bhurja, Meshasingi, Thinisa, Chandana, Kuchandana, Siroshaasana, Dhavarjuna, Thala, Suaka, Nakramaala, Puthee, Kaaswakarna, guruni, Kaaleevakam.

40. Parushaka, Draaksha, Katphala. Daadima. Rajaadana, Kathaka Phala Saaka Phala, Vibheetaki, Hareethaki and Amalaki.

41. Nyagrodha, Udumbara, Aswaddha, Plaksha, Madhuka, Kapeethana, Kakubha, Amra, Sokaamra, Choraka, Patra, Jambudwaya, Piyaala, Madhuka, Kapeethana, Kakubha. Rohini, Vankhula, Kadamba, Badari Tinduki, Sallaki, Rodhra, Saagara Rodhra, Bhallataka, Palasa, Nandi Vriksha.

In a case of thin semen, measures laid down under the same head before, as well as those to be hereafter described should be resorted to. Similarly a medicated *ghrita*, prepared with the *Kalka* of *Chritraka* roots, *Usheera* roots, and *Hingu*, should be drunk, in a case of the semen smelling like urine or stool.

In all cases of Seminal disorders as well as in menstrual disorders, *Uttara-Vasti*, should be made after having recourse to the application of medicated oil etc. (*Sneha-Karma*), purgatives, emetics, *Asthaapana* and *Anuvasana* enemas.⁴²

DISEASES OF THE MALE ORGAN

(*Sisinam*; *Medhram*; *Mehanam*; *Sephram*; *Mani* and *Charmam*)

The Upadamsa-Nidanam.

An inflammatory swelling of the penis whether ulcerated or not is called *Upadamsa*. The disease owes its origin to the action of local *doshas*, aggravated by promiscuous and excessive sexual intercourse, or by entire abstinence in sexual congress; or by visiting a woman, who has observed a vow of lifelong continence or one who has not long seen a man; or one in her menses; or one with an extremely narrow, or spacious (*Suchi Vaktra* and *Mahayoni*) vagina; or with rough or harsh or large pubic hairs; or by going unto a woman whose vagina is studded with hairs along its entire length; or by visiting a woman not amorously disposed towards the visitor and vice versa; or by knowing a woman who washes her private parts with foul water, or neglects the cleanliness of those parts, or suffers from any of the vaginal diseases; or one whose vagina is naturally foul; or by going unto a woman in any of the natural fissures of her body other than the organ of copulation (*Vi-Yoni*); or by pricking the genital organ with finger nails of woman; or by biting it with teeth; or through some poisonous contact; or getting the organ (Penis) abnormally elongated by pricking the bristles of a water parasite (*Suka*) into its body; or by practising masturbation; or by an unnatural co-habitation with female quadrupeds; or by washing the genitals with filthy or poiso-

42. Su. Sar. Cha. 2.

nous water; or through neglect to wash the parts after coition; or voluntary suppression of a natural flow of semen or urine or through any hurt thus or pressure on the penis etc. The inflammation of the genital organ thus engendered is called Upadamsa.

The disease is divided into five distinct types such as the *Vaataja*, *Pittaja*, *Kaphaja*, *Sannipataja* and the *Raktaja*.

Symptoms of Vaataja type

The roughness of the genitals; the bursting or cracking of the integuments of the penis, and prepuce etc., numbness and swelling of the effected part which is perceived rough to the touch and the presence of a varied sort of pain peculiar to the deranged *vaayu*.

Symptoms of Pittaja type.

Fever sets in (from the very beginning), the penis becomes swollen, and assumes the colour of a ripe Indian fig, attended with a sort of intolerable burning sensation. The process of suppuration is rapid, and a variety of pain peculiar to the deranged *Pitta*.

Symptoms of Kaphaja type.

The penis becomes swollen, hard and glossy, marked by itching and a variety of pain characteristic of the deranged *Kapha*.

Symptoms of Raktaja type.

The organ bleeds heavily, and is covered with the eruptions of large black-vesicles. Fever, thirst, *Sosha*, burning, and other characteristic symptoms of the deranged *Pitta* are also present. Palliation is all that can be occasionally effected in these cases.

Symptoms of Sannipaatika type.

Symptoms specifically betraying to each of *Vaataja*, *Pittaja* and *Kaphaja* types concurrently manifest themselves in this type. The penis cracks, the ulcers, or cancers become infested with parasites and death comes in to put a stop to the suffering of its wretched victim.⁴³

43. Su. Nida. Chap. 12.

Lingarsas : (Fig warts or condylomatous growths about the male genitals).

The deranged and aggravated *Vaayu* etc. finding lodgment in the genitals, vitiate the local flesh and blood, giving rise to an itching sensation in the affected localities. The parts become ulcerated, and the ulcers become studded with sprout-like vegetations of flesh (warts) which exude a kind of slimy, bloody discharge. These growths or excrescences generally appear on the inner margin or on the surface of the glans penis, (*Mani*) in the form of soft, slender, vegetations of skin, resembling the hairs of a small brush (*Kurchika*). These vegetations ultimately tend to destroy the penis and reproductive faculty of the patient.⁴⁴

Suka - Dosha.

Any of the eighteen different types of the disease may affect the genital (Penis) of a man, who foolishly resorts to the practice of getting it abnormally elongated and swollen by plastering it with *Suka* (a kind of irritating water insect) and not in the usual official way.

Classification.

Sarshapikaa, *Ashtilikaa*, *Gradhitam*, *Kumbhikaa*, *Alaji*, *Mriditam*, *Sammudha*, *Pidaka*, *Avamantha*, *Pushkarika*, *Sparshahaani*, *Uttamaa*, *Sataponaaka*, *Tvak paakaa*, *Sonithaarbudam*, *Maamsaarbudam*, *Maansa Paaka*, *Vidrathi* and *Tilakaalaka*; these eighteen are the result of the above malpractices.

1. *Sarshapika*: The tiny herpetic eruptions (*Pidaka*), which resemble the seeds of white mustard in shape and size are found to crop up on the penis on account of a deranged condition of the *Rakta* and *Kapha* Dhaatus, as the result of injudicious application of *Suka* plasters.
2. *Ashtilika*: Eruptions of hard stone-like pimples (*Pidaka*) irregular at their edges or sides, and which are caused by the aggravation of local *vaayu*, by the use of a plaster of the poisonous *Suka*.

44. Su. Nida. Chap. 2-V. 15.

3. *Gradhitham* : The Knotty Grandhis (nodules) on the penis owing to its being frequently stuffed with the bristles of a Suka insect. This type is caused by the deranged action of the Kapha.
4. *Kumbika* : A black wart resembling the stone or seed of a Jambolin fruit in shape. This type is due to the deranged condition of the Rakta and Pitta and is called *Kumbhika*.
5. *Alaji* : Exhibits symptoms, which are identical with those manifested by a case of *Alaji* in *Prameha*.
6. *Mriditam* : A wart (Papilloma) attended with the swelling of the part and caused by the aggravated *Vaayu* on the hard and inflamed penis causing pressure, on the urethra.
7. *Sammudha-Pidakaa* : The Pustule or eruption appearing on the penis on account of its being extremely pressed by the hand, in its darsum. It is the outcome of excited *Vaayu*.
8. *Avamantha* : A large number of elongated pustules on the penis, which burst at the middle, causing pain and shivering to the patient.
9. *The Pushkarika* : This type of the disease is marked by the eruptions of small pimples around the principal one. The type has its origin in the deranged condition of the *Raktam* and *Pittam*, and is so called from the part of the excrescences being arranged in rings or circles like the petals of a lotus flower in shape.
10. *Sparsahani* : A complete anesthesia owing to the vitiated *Rakta* by the injudicious application of a *Suka*.
11. *Uttama* : Pustules appearing on the penis through the vitiation of the local *Rakta* and *Pitta* by such constant application.
12. *Sathaponaka* : Due to the aggravated condition of *Vaayu*, small holes with small openings are generated on all the sides of the *Mehanam* (PENIS).
18. *Tvakpaaka* : A suppuration of the prepuce under the circumstances. There is fever with a burning sensation in the

affected organ. The disease is due to the vitiated condition of *Rakta* and *Pitta*.

14. *Sonithaarbudam* : The disease in which the penis is marked by the eruption of black vesicles and is covered over with a large number of red pimples or pustules with an excruciating pain in the ulcerated region of the organ.
15. *Maamsaarbudam* : The vegetation of a fleshy tumour on the penis (incidental) to a blow on the organ to alleviate the pain of inserting the hairs of the Suka insect into its body.
16. *Maamsaaphaka* : A suppuration as well as sloughing of the penis attended with different kinds of pain which severally mark the deranged *Vaayu*, *pitta* and *Kapha*.
17. *Vidradhi* : The specific symptoms of a *Tridoshaja Vidradhi* as described before, mark the one which affects the penis.
18. *Tilakaalaka* : A process of general suppuration and sloughing of the organ marks the type, which is produced by the application of a black Suka or one of the variegated coloured insect of the same species. The type should be regarded as Tri-doshaja one.

Prognosis.

Of the above enumerated malignant diseases of the penis, those known as *Mamsaarbuda*, *Maamsapaaka*, *Vidradhi* and *Tilakaalaka* should be deemed as incurable.⁴⁵

The Parivarthika.

The vital *Vaayu*, aggravated by such causes as excessive massage (masturbation), pressure, or local trauma, attacks the integuments of the penis (prepuce) which being thus affected by the deranged *vaayu* forms into a knoty like structure and hangs down from the glans penis. The disease known as *Parivartikaa* or Phymosis is due to the action of the deranged *Vaayu*, aggravated by any extraneous factor. It is marked by pain and burning sensation and

45. Su, Nida. Chap. 14-22.

sometimes suppurates. When the knotty growth becomes hard and is accompanied by itching, then it should be known that it is caused by the aggravated *Kapha*.

Avapaatika.

When the integuments of the prepuse (*Mani charma*) is abnormally and forcibly turned back by such causes as coition under excitement, with a girl (before menstruation (*Anaartava*) and before the rupture of hymn (*Bhagucharma*) (*Kanya*) and consequently with a narrow external orifice (*Soochikaghi*) or masturbation, or pressure, or a blow on the penis, or a voluntary retention of a flow of semen or by the forcible opening of prepuse, the disease is called Avapaatika (Para-phymosis).

Niruddha-prakaasa.

The prepuse (*Charma*) affected by the deranged *Vaayu*, entirely covers up the glans penis (*Mani*) and thus obstructs and covers up the orifice of the urethra. In cases of partial obstruction a thin jet of urine is emitted with a slight pain. In cases of complete closing the emission of urine is stopped without causing any crack or fissure in the glans-penis in consequence. The disease is called *Niruddha-prakaasa* which is due to the deranged *Vaayu* and is marked by pain. (in the glans penis).⁴⁶

Treatment of Upadamsa.

In cases of curable types of Upadamsa, *Sneha* should be first applied, and the affected part should be fomented. Then the veins of the penis should be opened or leeches should be applied (to the organ) for the elimination of the contaminated blood. (Jejjata holds that leeches should be applied in a case of superficial Upadamsa).

General Treatments.

The system of the patient should be cleansed with both emetics and purgatives in the event of an excessive aggravation of the *doshaas* inasmuch as the local pain and swelling would subside

46. Su. Nid. Chap. 13-41.

simultaneously with the elimination of the aggravated *doshaas* from the system. Medicinal Vastis, should be injected (into the rectum) in the way of a *Niruha-Vasthi* for the elimination of the aggravated *doshaas* where the weakness of the patient would prohibit the application of a purgative.

Treatment of Vaataja Upadamsa.

In a case of *Vaataja* type of the disease, drugs such as, *Prapundarika*, *Yashti-madhu*, *Varshaabhu*, *Kushtha*, *Devadaaru*, *Sarala*, *Aguru* and *Rasnaa*, should be used as a plaster. Similarly plasters composed of *Nichula*, castor seeds, pulverised wheat and barley grains pasted with *sneha*, should be applied lukewarm to the seat of the disease, which should also be affused with a decoction of the above-mentioned drugs viz., *Prapundarika*.

Treatment of Pittaja Upadamsa.

In a case of the *Pittaja* type of the disease, a plaster composed of *Gairika*, *Anjana*, *Yashtimadhu*, *Saariba*, *Useera*, *Padmaka* (red), *Chandanaa* and *Utpala* mixed with a *Sneha* (*Sata Dhouta Chrita*—*Sivadaasa*), or that composed of *Padma*, *Mrinaala*, *Sarjja*, *Arjuna*, *Vetasa* and *Yashti-Madhu* mixed with ghee should be applied to the affected organ which should be sprinkled with a solution of milk, ghee, sugar, sugar-cane juice and honey, or with a cold decoction of the drugs of the *Vata* etc.

Treatment of Kaphaja Upadamsa.

In a case of *Kaphaja* type of the disease, a plaster composed of the barks of *Saala*, *Asva-karna*, *Aja-karna* and *Dhava*, pasted with oil, should be applied hot to the affected part. As an alternative, the drugs such as *Haridra*, *Ativisha*, *Musta*, *Sarala*, *Devadaru*, *Putra*, *Paathaa* and *Dattura* should be used for similar purposes and the affected organ should be affused with a decoction of the drugs of the *Surasaadi* and *Aaragwadhaadi* groups.

The above remedial measures viz., plasters, *Parisheka*, blood letting and *Samsodhana*, as well as those described in first chapter (*Sutrasthana*)—and (*Chikitsa*), should be resorted to in a case of Upadamsa. The physician should try his best, to arrest the sett-

ing in of suppuration, inasmuch as suppuration in the veins, ligaments, skin and flesh would lead to the destruction of the organ (*Dhvaja*). An incision should be made as soon as suppuration would set in, and the pus and other putrid matters being drawn out, the incised part should be plastered with the paste of seasamum mixed with honey and *Ghee*. The incidental ulcer should be washed with a decoction of the leaves of *Karavira*, of *Jati*, and *Aragwaadha*, or of *Vaijayanti* and *Arka*.

The use of a medicinal plaster composed of the fine powders of *Souraashtramrittika*, *Gairika*, *Tuttha*, *Pushpa-Kaasisa*, *Saindhava*, *Rodhra*, *Rasaanjana*, *Daaru*, *Haridra*, *Haritala*, *Manahsila*, *Harenuka* and *Ela* mixed with honey is highly recommended in all cases of Upadamsa.

A decoction of the tender leaves of *jambu*, *Aamra*, *Sumanas*, *Nimba*, *Sweta* and of *Kaamboji* (*Maashaparni*) and the barks of *saallaki* *Badara*, *Bilva*, *Paalaasa*, *Tinisaa* and of the *Kshiri* trees, as well as *Triphala* should be used by the physician for constantly washing the ulcer. Oil cooked with the preceding decoction, with the Kalka as of *Coji*, *Vidanga* and *Yashtimadhu*, as well as with the different spices (*Elaadi* group) should be used as the best remedy for the purpose of the healing up (*Ropana*) of an Upadamsa-ulcer of whatsoever type. The use of a pulverised compound composed of *Sarjika*, *Tuttha*, *Kaasisa*, *Saileya*, *Rasaanjana* and *Manahsila* taken in equal parts arrests the extension of the ulcer and *Visarpa*. Cases of *Upadamsa* and *Visarpa* readily yield to the application of a pulverised compound of the ashes of *Gundra*, *Haritaala* and *Manahsila*. An application of *Bringaraaja*, *Triphala* and *Danthi* mixed with the powders of copper and iron destroys Upadamsa just as the thunder bolt of *Indra* destroys a tree.

Treatment of Tridoshaja and Raktaja Upadamsa.

The medical treatment of the two kinds of Upadamsa due to the concerted action of the three *doshaas* as well as that due to the vitiated *Rakta* should be taken in hand without holding out any definite hope of recovery. The above mentioned medicines specific to the different *doshaas*, should be combinedly applied in these

cases, in consideration of the nature and intensity of the *doshaas* specifically involved in them. Now here me discourse on the special treatment of *Tridoshaja* Upadamsa. It should be the same as in the case of a malignant ulcer (*Dusta Vrana*). The putrid portion of the male organ should be cut off and the remaining portion should be fully cauterized with a *Jambuoshtha* instrument make red hot in fire. Honey and clarified butter should then be applied to the cauterized part, and medicinal plasters and oils possessed of healing properties should then be applied to the cauterized part and medicinal plasters and oils possessed of healing properties, should be applied to the incidental ulcer when it would be cleansed.⁴⁷

Treatment of the sores on the penis (suka).

General treatment : Remedies such as medicinal decoctions, pastes, medicated clarified butter, powders, *Rasakriyaas*, etc. and the measures for purifying and healing, should be employed with due consideration to the nature and intensity of the aggravated doshas involved in the case. The application of specifically prepared medicated *Chrita*, purgatives, blood letting and light diet should be similarly prescribed.

Prognosis : The medicinal treatment of the patient affected with any of the following types of the disease, viz., *Arbuda*, *Maamsapaaka*, *Vidradhi* and *Tilakaalaka* should be undertaken without holding out any definite prospect of recovery.

Treatment of Sarshapi etc., in Detail.

In a case of the *Sarshapi* type of the disease, the affected part should be scarified, and dusted with powdered drugs of an astringent taste and an oil, cooked with the kalka and decoction of the same drugs, should be applied for healing purposes. In a case of the *Ashthilika* type of the disease, the skilful physician should apply leeches to the seat of affection. In case the swelling does not still subside, it should be removed and treated as a *Kaphaja Grandhi*. A *Grandhi* type of the disease should be constantly

47. Su. Chi. Chap. 19—13-22.

fomented in the manner of *Naadi-Sweda* and should be poulticed with a lukewarm medicinal compound mixed with a profuse quantity of *Sneha*.

An incision should be made into the suppurated seat of affection in a case of the *Kumbhikaa* type of the disease, and the incidental ulcer, should be purified and healed up with the application of the oil, cooked with *Triphala*, *Lodhra*, *Tinduka* and *Aamraa-taka*. In the *Alaji* type of the disease, the affected part should be fied by applying leeches to it, and should then be affused with a decoction of the astringent drugs. An oil, cooked with the decoction of the same drugs, should be used to heal the ulcer.

In the *Mridita* type of the disease, the affected part should be affused with tepid *Balaa* oil and poulticed with a lukewarm plaster (*Upanaaha*) of the drugs of the *Madhura* (*Kakolyaadi*) group, pasted and mixed with ghee. Leeches should be speedily applied, to the condylomatous growths (*Pidaka*) in a case of *Sammudha Pidaka*. In cases of suppuration, they should be opened and plastered with honey and ghee. In a case of *Avamantha*, the growths (*Pidaka*) should be opened, when suppurated and healed up with the application of an oil, cooked with *Dhava*, *Aswa-Karna*, *Pattanga*, *Saallaki*; and *Tinduka*.

In a case of *Pushkaarikaa*, all kinds of cooling measures should be applied and the vitiated blood should be extracted, by applying leeches. The affected part should be subsequently affused with ghee. In a case of the *Sparsaa-haani* type of the disease, blood should be let out and plasters (*Pradeha*) of *Madhura* (*Kaakolyaadi*) drugs should be applied. The affected part should be affused with a very cold compound of milk, clarified butter and expressed juice of sugar-cane. In the type of the disease known as *Uttamaa*, the *Pidakaas*, should be removed with the help of a *Vadisa* instrument and powders of astringent drugs, with honey should be applied to the seat of affection.

In a case of the *Sataponaaka* type of the disease, the affected part should be scarified and the measures laid down in connection with the *Rasa-Kriya* should be resorted to. After this, an oil cooked

with the *Prithak Parnyaadi* drugs, should be likewise applied to the seat of the disease. The medicinal treatment in a case of *Tvak-paaka*, should be the same as described in connection with *Visarpa* (*Erysipelas*). The remedial measures laid down under the head of *Rakta Vidradhi*, should be employed in a case of *Sonitaarbuda* type of the disease.⁴⁸

Treatment of Parivartika.

In a case of *Parivartika* (Paraphymosis) the glans penis (*Mani*) should be rubbed with the clarified butter and duly fomented, and *Saalvana* and such other *Vaayu* subduing plasters (*Upanaaha*) should be applied for three or five days. Then having lubricated the part, with *ghve*, the *Glans penis* should be gently pressed, and the *Prepuce* should be smoothly drawn over the *Glans penis* (*Mani*), so as to cover it entirely within its fold. The prepuce (*Manicharma*) being so drawn, should be fomented with warm poultices. *Vaayu* subduing *vastis* (clysters) should be employed and emollient diet should be prescribed. A case of *Avapaatika* should be similarly treated, after a due consideration of the nature and intensity of the *doshaas* involved in the case.

Treatment of Niruddha-Prakasa.

In a case of *Niruddha-Prakasa* (Stricture of the urethra) a tube made of iron, wood, or shellac, should be lubricated with clarified butter, and gently introduced into the urethra. The marrow or lard of a boar, or of a porpoise, or the *Chakra-taila*, mixed with *Vaayu* subduing drugs, should be sprinkled over the affected part. Thicker and thicker tubes (sounds) should be duly introduced into the urethra every third day. The passage should be made to dilate in the aforesaid manner, and emollient food should be given to the patient. As an alternative, an incision should be made (into the lower part of the penis,) avoiding the *Sevani* (raphe of the perineum) and it should be treated as an incidental ulcer (*Sadyo-Vrana*)⁴⁹

48. Su. Chi. Chap. 21.

49. Su. Chi. Chap. 20.

Treatment of Linga Arsas.

The remedial measures may be grouped under four sub-heads namely the employment of medicinal remedies; the application of an alkali; actual cauterisation; and surgical operation.

“*Arsasam chinnadagdhaanam kriyaa karyopadamsavat*”⁵⁰

Note : Upadamsam may not be Syphilis of Modern medicine, whole to whole. Certain types of Upadamsa as *Raktaja* and *Tridoshaja* types which entail the destruction of the organs concerned, exhibit certain symptoms which are common to syphilis as well. The secondary eruptions and tertiary symptoms of syphilis are not mentioned by *Ayurvedic Maharshis*, who used to treat it only with vegetable medicines, and this fact intimates the probability that the secondary and tertiary symptoms of syphilis might not arise by their efficient and able treatment from the very beginning, preventing the absorption of the poison into the system. The practice of ablution so common among the Hindus, might be taken into consideration as one of the important preventive factors. No doubt the causation of this disease is sexual exposure primarily and extragenital methods.

The history of the occurrence of venereal diseases is still in the dark. It has been often questioned whether the “*Upadamsa*” of *Charaka* and *Sushruta* is really syphilis and whether the disease was introduced into India by the Portuguese in the 19th century. A systematic clinical picture of *Phirangiroma* which is the typical syphilis has been found in Bhavamishra’s “*Bhaava Prakaash*”, *Phirangiroma* means European disease. Gonorrhoea too is a very old disease even in India. Colonel Chatterji (1944) remarks that description of the conditions resembling it are found in the most ancient pre-historic writings. Disconnected descriptions are to be seen in the *Ayurveda*, long before Syphilis is mentioned in Eastern medical writings. Colonel Greval (1944) observes that “Syphilis in India does not thrive and therefore does not play the same havoc with the human body as in Europe.”

50. Vag. Utt. Chap. 34.

Is Sukram present in Woman? Have they got impotency?

As there is penis and glans penis in males, there is clitoris and glans clitoris in females. As there are two testes in males there are two glands, (Bartholin) on both sides of the vaginal orifice in females. How a glans penis gives sexual pleasure to males, glans clitoris also gives pleasure to females. It is clearly mentioned in *Susruta* “*Sukravahedwe thayormulam stane vrushanaoucha*” that the two semen carrying rotas (ducts) have their roots in the testes in males and in the breasts in females. The breasts are called *Kucha* when they are used by man for sexual enjoyment, and they are called *Sthana* when they are used by child for the secretion of breast-milk. An injury to any of them leads to loss of potency, delayed emission of Semen, or bloodstreaked character of that fluid. It is also said that the *Sukradhara* (Semen bearing) *Kala* extends to the entire body of all living creatures. How, through *peedanam* of the male organ; and heat produced in the body semen in a person collects in *Vasthi*, (testicles) in the same way, through *peedanam* of the breast and the heat generated throughout the body in the woman semen collects into the Bartholin glands and comes out during the sexual act. As in male, as soon as semen is discharged, he cannot perform the sexual act, so also in a female, as soon as there is complete emission of *sukram*, she also becomes unfit for sexual pleasure. It is said in *Susrutha* that there are three muscles in females, two in the two fallopian tubes carrying ovum and one in *Sukravaha srothas*⁵¹.

How males become impotent due to the waste of the seminal fluid, so also as *Sushruta* says even a female “*Anarthava sthanaa shandee ghara sparsaacha maidhune*”⁵² *Shanda*, having no *Aarthavam* and secretion of Bartholin fluid, the female organ becomes dry during sexual act, and the female feels no pleasure and unable to bear the act.

In both males and females *Dhaatus* are of two kinds—*Dhaatus* and *Upadhaatus*. *Sukram* having *ojas* as a *upadhaatu*, is main *Dhaatu*. whereas *Sukram* is not a main *dhaatu* but a pleasure giving lubricating fluid in female. Any injury to the breasts or

51. Su. Sat. Chap. 5.

52. Cha. Chi. Chap. 15.

when the breasts are filled with milk, the organ gets dry and no appetite for sexual union.

We find in *Susrutha*, that a boneless monstrosity is the outcome of the sexual act in which both the parties are females, and in their sexual union, their *Sukra* unite, somehow or other in the womb of one of them—(A mixture of female ovum and female semen being the seed). *Sukram*, *Tejo*, *Rethaseecha Beeja*, *Veeryendriyaani cha*. (Amarakosa). These six are the synonyms of *Sukram*.

Hence we can come to the conclusion that *Sukram* without spermatazoa (male portion of the seed) is present in females and they also get impotency due to loss of semen, due to injuries to the breast, due to diseases of the clitoris (*Bhagarsas*); and (extern genitals) *Upastha*.

Of these synonyms of *Sukram* the term *Sukram* only is applicable to female and not the other terms. *Tejas*, *Rethas*, *Beejam*, *Veeryam* and *Indriam*.

Pure and healthy Arthavam.

That menstrual fluid (*Arthavam*), which takes place once in every month, continues for five nights, and which is free from mucus, burning sensation, and pain and which is neither profuse nor scanty, should be regarded as healthy. Again that menstrual fluid which is of the colour of the fruit of *Gunja* (*Abrus precatorius*) or of red *lotus*, or of *Alakta* (Cotton soaked in lac dye) or of the insects called *Indragopa* (*Coccinella*), should also be regarded as healthy.⁵³

The *Aartavam* which is red like the blood of a hare, or the washings of shellac and leaves no stains on cloths which may be washed off by simply soaking them in water, should be considered as healthy.⁵⁴

“*Rasaat Stanyam thatho Striyath Raktam - Mamsaath Vasaa*”.⁵⁵

The *Rasa* or the lymph chyle, coloured through the effect of the healthy normal dyeing heat of the body, obtains the name of

53. Ch. Chi. Chap. 30.

55. Cha. Chi. Chap. 15.

54. Su. Sar. Chap. 2.

Rakta. The *Rasa* is transformed into the catamenial flow, in woman, which commences at the age of twelve and ceases at fifty years. Thus the *Rasa* is converted into “Semen” or into the menstrual fluid (Ovum) in women in the course of a month.⁵⁶

The process of menstruation commences at the twelfth year, flowing once in every month, and continues till the fiftieth year, when it disappears with senile decay of the body.⁵⁷

The two *Aartava* carrying ducts have their roots in the Uterus (*Yoni*) as well as in the *dhamanis* which carry the *Aartava* (Ovum).

An injury to any of these brings on sterility, suppression of the menses, and incapacity for copulation.⁵⁸

This *Aartavam*, though originating from *Rasa-Dhaatu*, which is of a cooling potency, is fiery or heat making (*Agneya*) in its character, and the fecundated or impregnated ovum is both cooling and heat making in its properties, on account of its partaking of the nature of the ovum and semen which are respectively possessed of the two preceding virtues. Hence several authorities hold, the *ovum* identical with the life blood or with the vital principle, of a living organism, and being such, to be the product of the five material principles (*Panchabhuthatmikam*).⁵⁹

Vasa: The oily or albuminous matter found within the components of the other fundamental principles (*Dhatus*) of the body (as metabolised by the internal heat, and regularly metamorphosed into the succeeding ones) should be grouped under the head of fiery or thermogenetic (*Aagneya*) substances. This fatty matter (*Vasa*) predominates in the female body, and produces its peculiar softness, beauty and pleasing shape, causes the growth of scanty but soft hair on its surface. It strengthens the eyesight and increases the energy of the body; improves its power of digestion and heightens its glow and complexion.

Derangement of Fat; Causes Symptoms & Treatment.

This *Vasa* is deranged by such acts as, an abuse of astringent, bitter, cold, parchifying or (*Vistambhi*) substances, a voluntary

56. Su. Sut. Chap. 14.

58. Su. Sar. Chap. 9.

57. Su. Sar. Chap. 2.

59. Su. Sut. Chap. 15.

repression of the natural urging for evacuations of the body by excessive sexual indulgence, and fatiguing physical exercise, or by the draining action of any particular disease. (*Soma Raga*) and (*Asthisrava*).

An instance of dislodgement of *Vasa*, from its proper seat or locality is attended by such symptoms as roughness of the skin, loss of the natural healthful glow of the body, and a breaking or an aching pain in the limbs. Anaemia or a gradual emaciation of the body impaired digestive function and a slanting or downward course of the deranged humours, mark the case where the bodily *Vasa*, has undergone a change in natural properties through any foul contamination. A case of loss or waste of the bodily fat (*Vasa*) is marked by such symptoms as impaired digestive function, dullness of sight, decay of strength and aggravation of bodily *Vaayu*, and always ends in death.

The medical treatment in the latter case should consist in the administration of oily or emollient drinks, use of medicated unguents, or lubrications, *Pradeha* and *Parisheka*, and a diet comprising light cooling, and well cooked articles of food.⁶⁰

Deranged aarthavam.

The *Aartavam* or catamenial fluid of a woman vitiated by the deranged *Vaayu*, *Pitta*, *Kapha* or *Rakta*, either severally or in combination of two or more *doshas*, should be likewise considered as unfit for the purpose of fecundation. Vitiating catamenial fluid exhibits the characteristic colour and pain of the deranged *doshas* or blood. Of the several kinds of the deranged *aarthavam*, those which smell like a putrid corpse or foetid pus, or which is clotted or is thin, or emits the smell of urine or fecal matter, should be deemed as being beyond remedy, the rest being naturally amenable.

Treatment of the derangements of aartavam.

In all the four cases when the *Aartava* would be found to be vitiated, the preliminary remedial measures of the application of oil etc. purgatives etc. (*Pancha-Karma*) should be first employed

60. Su. Su. Chap. 14.

and then the following measures should be undertaken. viz., application of *Kalka*, *Pichu* (application of tampons into the vaginal orifice, after dipping them with oil) *Pathya bhojana*, washing with decoctions (*Achamang*) as described under the treatment of *Yoni Vyaapat*. Appearance of clots of blood (*Granthi*) in place of healthy menstrual blood, would indicate, decoction or a pulverised compound of *Paatha*, *Trushuna* and *Vrikshaka* (*Kutaja*). A decoction of *Sri Chandana* and *Rakta Chandana* is indicated in the case when the menstrual fluid would smell like fetid pus, or contain marrow. The remedies described under the head of seminal disorders, should be likewise prescribed in cases of menstrual anomalies caused by the action of the deranged *Vaayu*, *Pitta* and *Kapha* according to the requirements of each individual case under treatment. *Salirice*, barley, wine and meat, with cholagogue properties, should be deemed as a whole some diet in these cases.

Asrigdara (menorrhagia).

An abnormal or excessive discharge of the menstrual blood, or its long persistence even after the wonted time, or its appearance at a premature or unnatural period called *Asrigdhara*. All types of the disease are attended with an aching in the limbs and a painful flow. In case of excessive hemorrhage, symptoms such as weakness, vertigo, loss of consciousness, darkness of vision, or difficult breathing, thirst, burning, delirium, palour, somnolence, and other *Vaataja* troubles may set in. A physician should treat a case of *Asrigdhara*, with measures and remedies as laid down under the head of *Rakta-Pittam*, in a case when the patient is young, careful in her diet, and the disease unattended with severe complications.⁶¹

Causes symptoms and treatment of pradara.

That woman who indulges excessively in food and drink that are saline, or sour, or heavy, or acrid (*Amla*), or capable of producing a burning sensation, or oily, or who indulges excessively in the flesh of animals that are domestic, or aquatic or that are unclean or in rice cooked with sesameseeds or milk, and rice prepared with

61. Su. Su. Chap. 2.

sugar or curds; verily of a woman that indulges largely in *Sukta* or whey, wines etc., the *Vaayu* becoming excited increases the menstrual blood beyond its ordinary measure, then overtaking those ducts in the womb (two) which bear the menstrual blood, increases the menstrual discharge thereby. It is in consequence of this, that this variety of *Rakta Pitta* which is predominated by the *Vaayu* is called *Asrikdara*, by those conversant with the science of medicine. And because the menstrual blood is discharged copiously, therefore also it is called *Pradara*. The causes and symptoms of this disease have thus been generally explained.

Vaataja pradara.

The blood shows itself to be frothy, thin, dry, dark coloured, or red, or of the hue of water, in which the flowers of *kingsuka* (*Butea frondosa*) have been soaked and its discharge is painful or painless. The provoked *Vaayu*, causes excessive pain in the waist, the groins, the chest, the flanks, the back, and the hips; with these symptoms the disease should be known to be due to excited *Vaayu*.

Provoked by food and drink that are dry (*Ruksha*), the *Vaayu* seising the *Aartava* in the manner already explained, generates the disease called "*Pradara*".

Pittaja pradara.

When the *Pitta* is provoked by food and drink that are sour, or hot, or heating or saline, or alkaline, it causes '*Pradara*' in the manner already mentioned.

The discharge of blue or very hot, or yellow, or dark menstrual blood and copious and frequent discharge of the blood, redness of complexion, and burning of the skin, thirst and swoons; fever and vertigo; with these symptoms the variety of the disease should be known to be due to *Pitta*.

Kaphaja pradara.

In consequence of excessive indulgence in food and drink that are heavy etc. the *Kapha* becoming provoked and acting in the manner stated before causes "*Pradara*".

The menstrual blood that is discharged, is slimy, pale in colour, heavy, oily, cold and mixed with mucous matter. The discharge is accompanied by mild pain, as also vomiting, dislike for food, nausea, hiccough, asthma, and cough.

Tridoshaja pradara.

That which is the general cause of the vitiation of a woman's milk and which shall be laid down below, is also the cause of '*Pradara*' characterised by the simultaneous excitement of the three faults. When the disease is characterised by *Tridoshaas* it presents the symptoms at a time of the three faults stated above.

Signs of an incurable fatal case.

In consequence of indulgence in all the causes of the three varieties stated above, the *Vaayu* of a woman, who has been exceedingly afflicted through much loss of blood, becomes predominantly excited. Thus excited the *Vaayu*, forces out the *Kapha*, which is hostile (*Pratyānika karam*) through the path of the menstrual blood. The *Kapha* that is thus forced out, is of a fetid smell, slimy, yellow and burnt by the energy of the provoked *Pitta*. Further, the *Vaayu*, possessed of great force, seizing all the fat (*Medas*) and adeps (*Majja*) in the body, expels the same, through the path of *yoni* or vaginal canal. The fat and the adeps thus expelled, look like *ghee* or marrow.⁶²

The discharge, under such circumstances, of the menstrual blood, becomes continuous, though at times it may be slight or scanty and it is accompanied by thirst, burning of the skin and fever.

The intelligent physician, should avoid to treat, such a woman, who becomes weak, having suffered much loss of blood.

Treatment.

All those medicines which have been laid down in the treatment of *yoni vyāpat* known as "*Vaatala yoni*", should be administered by the physician, in all the four varieties of *Pradara*. Those medicines which have been prescribed for persons afflicted with

⁶². Cha. Chi. Chap. 30

"*Raktaatisara*", *Lohita* or *Rakta—Pitta*, or the several kinds of *Rakta arsas*, may be administered in *Pradara*.

Agnivesa put the following question, to *Atreya Punarvasu* :—

"O, holy one! women are the main root of sexual pleasure and progeny of people, these are injured and obstructed by diseases, which affect their organs of generation. I desire to know from you, for the benefit of human beings, what the causes are of those diseases, and what their symptoms are, along with the medicines prescribable for their cure. Thus asked, *Punarvasu* said :- that there are twenty diseases that affect the female organ "*Yoni*" of generation".

Those diseases are generated by the injudicious conduct of women, of vitiated *Aartavam*, by faults of the semen and male generative organs and by accidental causes.⁶³

Causes in Susruta's Kaumaara Bhritya Tantra.

The bodily *Vaayu* of a girl of tender years, weakly constitution or build and dry organic temperament, is deranged and aggravated, in consequence of her excessive indulgence with a man of abnormally developed reproductive organ (Penis) and on getting into her organ of generation (*Yoni*) gives rise to different local vaginal diseases which become manifest through the presence of the symptoms of the aggravation of the three specific *doshaas*.⁶⁴

An offspring of a girl below the age of sixteen by a man below twenty five is usually found to die in the womb. Such a child in the event of its born being alive, dies a premature death or else becomes weak in organs and *indriyas*. Hence a girl of extremely tender age should not be fecundated at all. An extremely old woman, or one suffering from a chronic affection of *Yoni*, or afflicted with any other disease should not be likewise impregnated (A man with similar disabilities should be held likewise unfit.)⁶⁵

The injudicious conduct of life which is usually found in females, menstrual disorders, the diseased or defective nature of the seed (of the parent's) or any accidental cause may be fairly

63. Cha. Chi. Chap. 30.

65. Su. Sar. Chap. 10.

64. Su. Utt. Chap. 38.

set down as causes of these twenty different kinds of female diseases of "*Yoni*".

Afflicted by these diseases, the genitals are unable to hold the semen. Hence these women never conceive. On the other hand, they catch many diseases (*Anubandhas*) or *upadravaas*; such as *Gulma*, *Arsa*, *Pradara* and the rest as also excessive afflictions, due to provoked *Vaayu* and the rest.

The term "*Yoni*" is here used in a very comprehensive sense and means the whole female organ of generation, the two ovaries, fallopian tubes, uterus, vagina and the external genitals (*vuvla*). It is said in *Susruta* :— *sanghanaabhyakrithiryonistryaavartaa, saa Prakeerthitaa, tasya shruteeye twaavarthe garbhasayyaa prathishtithaa, Yadhaa rohita mathsyasya mugham bhavathi rupathah. thatsamsthaanam thadhaaroopam garbha sayyano vidurbhudhaaha*. The "*Yoni*" of a woman resembles the navel of a conch-shell in shape and is possessed of three involuted turns (*Aavartaas*) like the interior of mollusc. The Uterus (*garbhasayya*-Foetal bed) is situated at the the third posterior involuted turn. The shape of the *garbha-sayya* (Foetal-bed) resembles the mouth of a *rohita* fish—(narrow at the lower end mouth and expanded in the upper end) the three muscles which are found in the scrotum and penis of a man, as described below, correspond to the covering of the uterus in the case of a woman, owing to the absence of those organs in her body.

Extra muscles in woman.

Females have twenty extra muscles; ten muscles are to be found about the two breasts, five in each; which attain its full growth during puberty. Four muscles are present about the parturient passage and of these four two are at about the external orifice clitoris of the vulva and give pleasure; and two at about the internal orifices of the vagina. Three about the region of the os (*garbha chidra*) and three along the two passages of ovum and one along the passage of *Sukra*. The *Garbhasayya* or uterus is situated in the space bounded by the *Pittasaya* and *pakwasaya* and the foetus lies in this during the period of gestation.⁶⁶

66. Su. Sareer. Chap. 5.

Twenty Diseases of Yoni peculiar to females : (Female organs of generation)⁶⁷

1. *Vaatala Yoni vyapaat* : Of a woman in whose constitution the *Vaayu* predominates, and who indulges in food and exertion that are provocative of the *Vaayu*, the *Vaayu* becoming excited and locating itself in the organ of generation, causes piercing and other kinds of pain, as also a sensation of stupefaction or of creeping of ants and roughness of the parts. The loss of tactile sense and a fatigue or langour are also caused by such aggravation of *Vaayu*. Other ailments are also caused by such aggravation of *Vaayu*. From such aggravation of *Vaayu*, it has menses accompanied by sound, pain, and froth, thin and oily in character.
2. *Pittaja Yoni Vyaapat* : By indulgence in food and drink that are saline, acid, or sour, or alkaline, *Pittaja* diseases afflict the female organ. The *Yoni* that is vitiated by *Pitta*, becomes afflicted with burning, ripening (*Paaka*), fever and heat. The menstrual flow becomes blue, or yellow or white in colour. Hot discharges often take place, the smell of which is like that of corpses.
3. *Kaphaja Yoni Vyaapat* : If *Kapha*, aggravated by food and drink possessed of insipid virtues, vitiates the generative organs of woman, the effects produced are that the organ becomes cold, slimy, itchy, and painful. The complexion also of the vulva becomes pale, and it has discharges pale and slimy.
4. *Tri-doshaja Yoni Vyaapat* : Of the woman, who indulges in food of all the six tastes, the three *malaas* which are located in the vulva and *Yoni* are vitiated and manifest their

67. It is worth noting here that the twenty varieties, spoken of by *Punarvasu*, has often been referred to by latter authors but often they are seen to confound the symptoms with one with the name of another, New names have been coined, and new symptoms attached to original names of the class. *Susruta* is very careful in including these diseases in his *Kaumaara Bhritya Tantra*.

respective symptoms. The *Yoni* is afflicted with burning and *sula* and secretes menstrual fluid, white in colour and slimy in character.⁶⁸

5. *Sapraja or Apraja Yoni Vyaapat* : This is otherwise called *Rakta-Yoni*. By indulgence in such food and drink, as create *Rakta-Pitta*, blood of a woman becomes vitiated by *Pitta*, a copious discharge of blood takes place from her organ. Further, even if she receives the vital seed, she does not conceive.
6. *Arajaska Yoni Vyaapat* : If the *Pitta* be located in both the organs, *Yoni* and *Garbhaasaya*, it vitiates the blood. Such a *Yoni* is called *Arajaska* or *Amenorrhoe*.
Emaciation and discolouration also are present in a large degree.
7. *Acharana Yoni Vyaapat* : In consequence of a woman's neglect, properly to wash her organ, worms are generated, which cause a sensation of itching. Such a vulva is called "*Acharana*". In consequence of itching, the woman becomes very much desirous of the companionship of new males.
8. *Aticharana Yoni Vyaapat* : In consequence of indulgence in excessive sexual intercourse, the *Vaayu* becomes excited and causes swelling, or loss of tactile sense or pains in the organ. A *Vulva* thus circumstanced is called *Aticharana*.
9. *Praak Charana Yoni Vyaapat* : Through indulgence in sexual congress before the female is not fully matured, and her organs not properly developed, the *Vaayu* becoming excited, vitiates the *Yoni* and causes pain in the back, the waist, the thighs and the groins. A *Yoni* so circumstanced is called *Praak-Charana*.

68. There is not a single vessel (*Srotas*) in the body which carries either the *Vaayu* or the *Pitta* or the *Kapha* alone. Hence, each of the vessels should be regarded as affording an opportunity for conveying all kinds of the *Doshas* of the body, for as soon as they are deranged or aggravated, they seem to flow through all the *Siraas* promiscuously. Hence they are called *Sarva Vahah*. Going then into the organ and the womb, they cause the former to manifest their respective symptoms.

10. *Upaplutha Yoni Vyaapat*: Through indulgence in food and drink and practices which excite *Kapha*, and also through suppression of the breath, and the urgings of vomiting, the *Vaayu* becomes aggravated in the *Pregnant* woman and drives the *Kapha* into her organs of generation and thereby vitiates them.

Then there are discharges (*Aasraavo-scant*) that are of a pale colour, and accompanied by pains, as if being pierced with needles; or are white and *Kledaja*. Afflicted by ailments due to *Kapha*, and *Vaayu* the *Yoni* is called *Upapluta* (Distressed or pained).

11. *Pariplutha Yoni Vyaapat*: A woman in whose body *Pitta* predominates, by supressing the urgings of sneezing and eructations, during sexual intercourse with a male, has the *Vaayu* overwhelmed by *Pitta*. The *Vaayu* thus overwhelmed by *Pitta* vitiates her *Yoni*.

Here the *Yoni* becomes swollen, and tender to the touch. There are bloody discharges from her organ accompanied by pain and they are either blue or yellow in colour. Pains appear also, in the hips, groins, and the back. Fever also manifests itself. The *Yoni* of a woman thus circumstanced is called *Paripluta* (Afflicted with pains in all directions).

12. *Udaavarthini Yoni Vyaapat*: In consequence of the suppression of natural *Vegaas*, the *Vaayu* becomes provoked and overwhelms the *Yoni* causes retention and diverts the menstrual flow in an upward direction. The woman then with great pain, discharges her obstructed menstrual flow. But as soon as the flow is discharged, the woman gets immediate relief. In consequence of the flow going upwards, this *Yoni* is called *Udaavarthini* (in which spiral motion of *Vaayu* in the upper part of *Yoni*) by the learned.

13. *Karnini Yoni Vyaapat*: Of a woman who makes efforts to evacuate the *Vasti* or *Guda* (*Garbha*) before the proper time the *Vaayu* encased by *Garbha*, combining with *Kapha*

and *Rakta*, generates circular swellings (*Karnika*) in the inner surface of the organ (*Yoni*). Owing to those circular eruptions which obstruct the passage of menstrual fluid, the organ is called by the name of *Karnini Yoni Vyaapat*.

14. *Putraghni Yoni Vyaapat*: When the provoked *Vaayu*, through its dryness, repeatedly destroys the foetus born of vitiated *Aarthava*, as soon as conceived in the womb, the *Yoni* is known by the name of *Putraghni* (one whose children are destroyed) *Yoni*.

(Congenital diseases of the organs of generation in females: When the particular portion of the mother's seed in the *Yoni*, from which the child's *Aarthavam* and *Yoni* grow, become vitiated the consequence is, that the mother begets a barren child. When again, in her ovum, that portion of the element from which the *Yoni* is generated, becomes vitiated, then she begets a daughter, who is sure to bring forth dead children (*Poothi Praja*). When, however that portion of the seed from which the child's *Aarthavam* and *Yoni* are generated is partially vitiated, and when a portion only, of that part of the seed from which the distinguishing organs of femininity grow become vitiated, then she begets a child in which the features of femininity predominate but only a hermaphrodite called "*Varitta*". Such a child is called "*Stree Vyaapat*" (a break down of femininity).

Similarly, in consequence of the defects of father's semen, deformities appear in those limbs of the child, which are fatherborn. When again, that portion of the father's semen from which the semen is generated, becomes vitiated, then she begets a child who becomes incapable of begetting living children.)

15. *Antarmughi yoni vyaapat*: Of a woman, who having stuffed her stomach with food, indulges in sexual congress, lying in an improper attitude, the *Vaayu* is provoked and locates itself in the uterine duct. It causes the mouth of the

organ to fall away from its proper position (Uterine displacements.)

Then, the bones and the flesh of the organ, become afflicted with pain due to *Vaayu*. The organ sorely afflicted with pain is indifferent to sexual congress. This condition is known as *Antarmukhi* (has its mouth within).

16. *Soochi mukhi yoni vyaapat* : Through dryness, the *Vaayu* vitiating the female "*Yoni*" when in the uterus (*Garbha Sayya*) in embryonic condition, due to her mother's fault, causes the mouth of her organ (*Os*) narrow like a needle. Such an organ (*Yoni*) is called *Soochi mukhi*.
17. *Suska yoni vyaapat* : Of a woman, who suppresses sneezing, eructations, the urgings of stools, and urine during the time of sexual congress, the provoked *Vaayu* produces retention of stool and urine. It also makes the mouth of her organ dry, such a *Yoni* is called dry (*Rushka*).
18. *Vaamini yoni vyaapat* : The organ which discharges, on the sixth or the seventh day, the semen which entered the *Yoni* after the sexual act, mixed or unmixed with the ovum, is called *Vaamini* (which vomits).
19. *Shandhi yoni vyaapat* : That woman who through the fault of the seed, of which she is born, has her own *Yoni* afflicted by the provoked *Vaayu*, in the womb of her mother becomes averse to the companionship of males. The breasts also are not developed. Such an organ is called "*Shandi*" (Eunuch). Such a case is incapable of being cured by treatment.⁶⁹
20. *Mahaa yoni vyaapat* : In consequence of indulgence in excessive sexual congress, while lying on a comfortless or uneven bed, the *Vaayu* becomes provoked and causes the obstruction or the stupefaction of both the *Yoni* and the

69. Parents emitting *Bija* or Seed (Mixture of *Artavam* & *Semen*) that possessed of vigour and that is small in measure or parents that are very weak, or that are cheerless at the time of conception, or those whose seed is sterile (*Mand: Veerya*) are causes of *Nara* or *Naari Shanda*. (Cha.Sar.Chap.11)

Yonimukha of woman. The organ with its mouth contracted, becomes afflicted with pain, and becomes dry or rough, and the catamenia that is discharged is accompanied by froth.

The organ becomes fleshless and sula pains appear, in her bone joints and groins. The *Yoni* is called *Mahaa Yoni*, (the great vulva-gaping through want of flesh).

The *Vaayu* and the rest afflict by manifesting their respective symptoms, the bodies of women affected by these diseases are unable to hold the semen. On the otherhand they catch many diseases such as *Gulma*, *Arsas*, *Pradara*, and the rest.

Leaving aside the first four varieties born of *Vaayu*, *Pitta* and *Kapha* and all the three combined together, of the other sixteen the first two *Aprajaa* and *Arajaskaa* are born of provoked *Pitta*. The two varieties *Pariplutaa*, and *Vaamini*, are regarded as born of *Vaayu* and *Pitta* together. The two varieties called *Karnini* and *Upaplutha* are born of *Vaayu* and *Kapha*. All the rest ten are born of *Vaayu* alone.

Sushruta's enumeration and classification.

1. *Udaavarta*, 2. *Vandhya*, 3. *Vipluta*, 4. *Paripluta* and 5. *Vaatala* are the five kinds of the *Vaataja* type. 1. *Rudhirakshra* 2. *Vaamini*, 3. *Sramsini* 4. *Putraghni* 5. *Pittalaa* are the *Pittaja* ones. 1. *Atyaananda*, 2. *Karnini*, 3. *Acharana* and 4. *Aticharana* and 5. *Sarvaja* are said to be due to the derangement of the *Kapha dosha*. 1. *Shandi*, 2. *Phalini*, 3. *Mahayoni*, 4. *Suchi Vaktra* and *Sarvaja* are the *tridoshaja* one's.

Symptoms of vaataja types.

1. *Udaavarta* : *Yoni* discharges painful and frothy menses (dysmenorrhoea).
2. *Vandhya* : *Yoni* is marked by the absence or suppression of the menstrual flow (sterility).
3. *Viplutha* : *Yoni*, in which local pain is always complained of (introversion).

4. *Paripluta*: *Yoni* in which an excessive local pain is experienced at the time of sexual congress. (Dyspareunia: retro version or retro flexion).
5. *Vaatala*: *Yoni* is marked by an aching and piercing pain in the organ, which seems to be rough and numbered. The peculiar pain is due to the derangement of *Vaayu* is also felt in the first four types of the series.

Symptoms of pittaaja types.

1. *Lohitaksharaa* or *Rudhiraksharaa*: *Yoni* which has the characteristic symptom of discharge of the menses with a burning sensation in the passage.
2. *Vaamini*: *Yoni* from which the semen mixed with menstrual blood is ejected with the sound of *Vaayu*.
3. *Prasamsi Yoni*: In this case the organ comes out (Prolapse) when disturbed by a difficult and painful perturbation.
4. *Puttraghni*: The *Yoni* in the case of repeated abortions, due to the excessive discharge of menstrual blood during the period of gestation is called *Puttraghni*.
5. *Pittala*: *Yoni* which is marked by the symptoms of an extremely burning sensation, and suppuration in the organ attended with fever.

Symptoms of the Kaphaja type.

1. *Atyaananda*: *Yoni* knows no satisfaction in matters of sexual pleasures.
2. *Karnini*: *Yoni* in which haemorrhoid growths or polypii due to the aggravation of *Kapha* and vitiated blood appear on the lining membrane of the organ.
3. *Acharana*: *Yoni* in which greater quantity of ovum is secreted before completion of the sexual act.
4. *Aticharana*: *Yoni* in which the semen is not retained in consequence of over indulgence.
5. *Sleshmala*: *Yoni* is very cold and slimy and has a local itching sensation.

Symptoms of Tri-doshaja (yoni) types.

1. *Shandhi*: *Yoni* of a woman marked by the non-appearance of the menses, non-development of her breasts and roughness of the vagina which is felt at the time of coition.
2. *Phalina*: *Yoni Vyaapat* of a woman of tender years, who has just passed her girlhood (*Kanyaattvam*), when ravished by a man with an abnormally developed genital organ.
3. *Maha Yoni*: *Yoni* with an extremely dilated vagina.
4. *Suchi-vaktra*: *Yoni* with a needle eye like vulva.
5. *Sarvaja*: *Yoni* marked with the symptoms of the aggravation of all the *doshas*.

The four preceding kinds of vaginal malformations or diseases are also due to the concerted action of the three *doshas* in the locality and the last kinds of *Tridoshaja* diseases are incurable.⁷⁰

Treatment General.

The generative organ (*Yoni*) of woman is never vitiated except through vitiated *Vaayu*. The physician should first of all alleviate *Vaayu*. He should then administer medicines for alleviating any other fault or faults that may be excited.⁷¹

In the varieties of *Vaayu*, the *Vaayu* is alleviated by "*Snehana*" "*Sweda*" and "*Vasti*". In those varieties of *Pitta*, such cooling treatment as is alleviative of *Rakta-pitta* should be adopted. In those varieties of *Kapha*, the expert physician should try that method of treatment which is dry (*Ruksha*) and heat making. In those varieties that are born of the three *doshas*, also in the varieties caused by two faults the methods of treatment should be combinations of those already stated.⁷²

The medical treatment of the curable types of *Yoni Vyaapat* should begin with the administration of a *Sneha*, according to the *Dosha* involved in each case, and application of properly charged vaginal enemas should be particularly resorted to. In cases where the *Yoni* would feel cold, rough, numbered, and be marked by

70. Su. Uttar. Chap. 98.

71. Cha. Chi. Chap. 80.

72. Cha. Chi. Chap. 80.

diminished sensibility, of its mucous membrane during sexual action, it should be fomented in the manner of *Kumbhi-Sweda*, with the flesh of aquatic and *Anupa* animals. The drugs of the *Madhura* group mixed with *Vesavara*, should be applied to the part and plugs of oil-soaked cotton should be constantly retained in the *Yoni*. Proper vaginal lotions and washes as well as the measures of *Poorana* prepared with *Varyu* subduing drugs should also be employed; cooling measures should be adopted in the case marked by dryness and sucking pain in the affected locality. The vagina should be filled up with the powders of the five officinal kinds of the drug (*Pancha-Kashaaya*) in a case marked by fetour and slimy mucus secretion and the decoction of the drugs of *Raaja Vrikshaadi Group* should be used in washing. *Pindaas* (balls) of *Sodhana* drugs pasted with cow's urine and saturated with salt should be inserted into the vagina marked by the discharge of pus.

A *Yoni* marked by itch and impaired sensibility, should be fumigated with the vapour of *Brihati* and the two kinds of *Haridra* taken together, which should be as well inserted and retained in the *Vagina*. A plug or stick composed of a paste of disinfectant (*Sodhana*) drugs should be inserted into and retained in a *Karnini Yoni*; and a prolapsing *Prasramsini Yoni* should be fomented hot and rubbed with *ghee*. It should then be restored to its proper place, and being pasted with *vesa vaara*, should be bandaged.

Diet.

Sura, *Aasava* and *Arishta*, should be prescribed according to the *Dosha* involved in each case and the patient should be made to take the expressed juice of garlic (*Lasuna*) every morning and her diet should consist mainly of milk, meat-soup etc.⁷³

So far have already described the nature of the medical treatment and the medical agents to be respectively pursued in and prescribed for diseases of the semen, menstrual complaints, affection of the mammals, impotency, cases of false presentation of child and diseases during the period of pregnancy and mother-

73. Cha. Chi. Chap. 30.

hood, and all these may be employoid with equal benefit in these diseases peculiar to the female sex.⁷⁴

An organ that has fallen of from its place should be restored to its normal position, after softening it by oils and fomentation. While an organ that has become bent, should be made straight again by the hand. Again, that whose (*Yoni*) mouth is narrow, should be widened. Cases of prolapse should be reduced by manipulation. When, again the mouth has become wide, it should be narrowed. An organ that has been displaced is felt by a woman to be like a thorn in her body.⁷⁵

All women afflicted with diseases of the orgrn (*Yoni*) should first be treated with oils and fomentations, and then with mild emetics and the rest which are included in the *Pancha Karmaas*.

Of a woman, who has been corrected in all respects the best process *viz.*, *Vasti* is to be had recourse to. To one who is suffering with diseases of *Yoni* born of *Vaayu*, processes alleviative of *Vaata Vyaadhi* are always beneficial.

The methods of *Naadi* and *Kumbhi* should also be adopted with the aid of the flesh of animals that are aquatic (*Oudaka*) and that live in marsny (*anupa*) regions, with that of milk boiled with sesame seeds, rice and with such meat-juice as are alleviative of the *Vaayu*.

Causing her to be rubbed with oil mixed with *Saindhava Salt*, and treating her with those methods of *Sweda* that are called "*Asma*", "*Prastara*" and "*Sankara*" and drenching her body with lukewarm water, she should be given boiled rice with such meat-juice as is alleviative of the *Vaayu*.

Balaa-Thilam.

Boil an Adaka (16 seers) of *Ghee* and oil (in two *dronas* (128 seers) of the decoction, or *Bala* (*Sida Cordifolia*) and four seers of the paste of these *viz.*, *Salaparni* (*Convolvulus Paniculatus*) *Payaya* (*Asclepias rosea*) *Jeevanti* (*Caelogyne ovalis*), *Kshira Kaakoli*, *Risha-bhaka* (Bamboo-manna substitute) *Jivaka* (*Tinospora Cordifolia*)

74. Su. Utt. Chap. 38.

75. Ch. Chi. Chap. 30.

Srauani (*Spaeranthus hirtus*), *Pippali Mula* (roots of *Piperlongum*), *Peelu* (*Salvadora indica*), *Kaashaparni* (*Glycerine debilia*), Sugar, *Kshira Kaakoli*, *Kaakanaasa* (*Asclepias Carassavica*).

All these are cooked together adding 16 seers of Milk. The measure of a dose depends upon the strength of the patient. This *Balaa-Thila* curing all ailments caused by the *Vaayu* and *Pitta* enables a woman to conceive.

Kaasmaryaadi Ghrita.

Kasmarya (*Gmelina arborea*), *Triphala*, *Draaksha* (Dry grapes), *Kaasamardda* (*Cassia sophora*) *Parushaka* (*Grewia Asiatica*), *Punar-nava* (*Boerhavia diffusa*), the two *Raajanis* (*Curcuma longa* and *Berberis asiatica*) *Sukanaasa* (*Asclepias Curasravica*), *Sahachara* (*Barleris Cristata*), *Sataavari* (*Asparagus racemosus*) and *Guduchi*. Take an *Aksha* (equal to 2 tolas) each of all these together. This *Chrita* cures all ailments caused by excited *Vaayu* in the *Yoni*. It is one of those fore most remedies that enable a woman to conceive and should be drunk.

Pichu: Oil cooked with equal measures of the paste of "Saindhva" salt, *Tagara*, *Kushta*, *Brihati*, and *Devadaaru* should be used. It is regarded as alleviative of pains, if inserted into the *Yoni* as *Pichu*.

Guduchyaadi thilam: A *prastha* (4 Seers) of oil, cooked with a *Kaarshika* (2 Tolas) of the paste of each of the following Viz., *Guduchi* (*Tinospora cordifolia*) *Maalati* (*Echites Caryophyllata*), *Raasna* (*Vanda Roxburghii*) *Bala* (*Sida Cordifolia*) *Madhuka* (Liquorice) *Chitraka* (*Plumbago Zeylanica*) *Nidigdhika* (*Kantakaari-Solanum*) *xanthocarpum*), *Mahaadaaru* (*Pinus deodaru*) and *Yuthika* (*Jasminum auriculatum*) and 8 seers of cow's urine and the same measure of milk, is beneficial for *Yoni Vyaapat* of *Vaayu* type. This oil should be sprinkled over the parts or rubbed over them or applied as *Pichu*.

Pichu should be inserted into the organ of a woman afflicted with *Vaayu*, and should be changed for fresher ones. After oiling the organ a woman afflicted with the disease of *Yoni*, due to *Vaayu*,

should hold in the organ the paste slightly heated of *Hingsra* (*Kantakari-Solanum Xanthocarpum*).

Treatment of pitta yoni vyaapat.

A woman afflicted with the disease of "Yoni" due to the *Pitta*, should have the paste of the five barks (*Vaata*, *Clomersi* fig, *Aswatha*, *Plaksha*, and *Vetasa*) applied within the organ. While one afflicted with *Kapha* should have the paste (hot) of *Syaamaadi* group, inserted into her organ as *Pichu*.

Of the organ vitiated by excited *Pitta*, the treatment should consist of the processes of sprinkling, rubbing and insertion of *pichu* poultice that are cooling and are alleviative of *Pitta* and *Ghees* boiled with drugs that are capable of subjugating the *Pitta* are also to be used for soothing the *Yoni* (Vagina) with *Sataavari* (Oils).

Brihat sathavari Ghritam.

Take 4 Tolaas (50 Seers) of *Sataavari* (*Asparagus racemosus*) and press out its juice. Cook an *adhaka* (16 Seers) of *ghee* with this juice adding an equal measure of milk. Add also an *Aksha* (2 tolas) of the paste of each of the following viz., the 10 drugs included in the group called *Jivaniya*, *Satavari*, *Mridvika*, *Parushaka* and the two varieties of *Yashtimadhu* (Liquorice). When the boiling is over and the contents of the vessel become cool, throw into the vessel 8 palas of honey, the same measure of powder of *Pipper longum* (*Pippali*) and ten palaas of sugar (A portion of this *Ghee*, should first be given to *Brahmanas* to drink) then the *ghee* should be given to the patient, the measure of a dose being *paanitala* (equal to two tolas). This medicated *ghee*, cures, the faults of the female organ, those of the blood, and those of the vital-seed. It is an aphrodisiac and a *pumsavana*. It cures also the following diseases viz., Sores, Waste, Conumption, *Rakta-pitta*, Asthma, Cough, *Kamila*, *Pandu*, *Vata-Rakta*, *Visarpa*, *Hidroga*, head-ache, insanity, exhaustion, apoplexy and ailments born of excited *Vaayu* or *Pitta*. This is called "Brihad Sataavari Chrita".

Milk and *ghee* cooked together with the paste of the *Dasamula* included in the group called *Jeevaneeya*, in the same way is the

remedy of the *Pitta* born *Yoni Vyaapat* and is conducive to conception.

Sticks of corrective virtues are beneficial for female organs vitiated by *Kapha*. These sticks should be made of lacyed cotton, macerated in copious measures of *Pitta* of the boar.

Sticks made of the flour of the barley and the *Saindhava* salt, both macerated in the milk of *Arka* (*Euphorbia nerifolia*) should be repeatedly held in the vagina. After this the organ should be sprinkled with water agreeably hot.

Sticks made of *Pippali*, *Maricha*, *Maasha*, *Sataahva*, *Kushta*, and *Saindhava* salt, of the length covered by the thumb and the first finger fully stretched should be held within the organ. Such sticks are corrective of the female organ of generation.

Audumbara thilam.

Take a *drona* (32 Seers) of the powder of the raw fruits duly dried of *Odumbara*. Take a *drona* of also of the five barks, *Kulaka*, the leaves of *Maalati*, and those of *Nimba*; soak these in two *dronas* (64 seers) of water for one night. The water in which drugs were soaked should then be taken and cooked with a *Prastha* (4 seers) of oil, adding the paste of the exudation of the following, viz., lac, *Dhava*, the bark of *Paulasa* and *Saalmali*. Sticks of cotton drenched in this oil so cooked, if introduced in the vagina alleviate all pains of the organ. The organ should then be sprinkled over with the decoction rendered cool, of the drugs mentioned above, adding sugar to it. This oil applied for a week, cures the sliminess of the organ, as also organs that have become wide mouthed; those that have been otherwise vitiated in time; and those that have been shattered or lacerated. The woman obtains child very soon.

Yonikandam.

In consequence of day sleep, anger, excessive physical labour, excessive indulgence in sexual congress, wounds generated by pricking with finger nails and biting with teeth etc., in the *Yoni* (Vagina), and in consequence of taking food and drink that are not congenial; the three *doshaas* get provoked and produce a

lemon like wound with pus and blood. This is said to be a *Yonikandam*.

In the *Vataja* type of the disease, the tumour will be dry without normal colour and is furrowed. In the *Pittaja* type symptoms of burning, redness and fever are present. In the *Kaphaja* type, they resemble like sesame seeds (white) and itching is present. In the *Tridoshaja* type all the symptoms are present.⁷³

Bhagaarsas.

The deranged *Vaayu* etc. of the body, lodged in the vaginal region of a woman, gives rise to similar crofts of small polypi in the passage. They may crop up, isolate at the outset, and may assume the shape of a mushroom or an umbrella secreting a flow of slimy, foul-smelling blood.⁷⁴ If neglected without treatment they lead to destruction of *Aarthvam* (Ovum). Treatment for this type of *Arsas* is the same as for *Upadamsam*.⁷⁵

Cellibacy : Errors of Sex Denial.

“Sareere Jaayathe nithyam dehinaam surathaspruhaa
Ayyavaayaa Snehamedo vruddhih Sidhilathaa thanam”.

Human beings have sexual desire generally every day. If one abstains from sexual congress altogether, he suffers from *Prameha*, *Medovridhi* and decay of body.

By suppression of the emission of semen, pain in the (*Medhra*) penis and the testes, langour of the body, pain in the heart, and retention of urine also are induced.

In such disorders caused by obstructing the emission of the vital seed, rubbing the body with oil, immersion of the body in cool water, wines, the meat of fowl, rice, enemata prepared with milk and sexual congress, are laid down as remedies for such suppression.⁷⁶

Stages of Sexual Development.

An intelligent physician should regard the organism of a man of twenty-five, or of a woman of sixteen years of age as fully deve-

73. Yog. Rat.

75. Vagbhata. Uttā, Chap. 33.

74. Su. Nid. Chap. II.

76. Cha. Sutra, Chap.

loped. The process of growth or building goes on upto the twentieth year of her life—the strength, semen and all the organs and the vital principles of the body attain full maturity, at the age of forty. Thenceforth decay gradually sets in upto seventieth year of life. After that the strength and energy of a man dwindle day by day. Childhood extends upto sixteenth year. Middle age of a man extends from the sixteenth year of his life to seventieth year exhibiting the traits of growth, youth, arrest of development and decay.⁷⁷

Those in whom the element of semen is in perfect tone (*Sukra Saaram*) are gentle and possess amiable light in their eyes, which appear as if full of milk and are full of cheerfulness and capable of largely indulging in sexual congress. They have unctuous, round, firm, close and even teeth, clear unctuous complexion and voice and are lustrous and have large hips. They are coveted sources of enjoyment for women, and are strong and possessed of happiness, Power, health, wealth, honour and off spring.⁷⁸

Accordingly the woman is called “*Baala*” upto her sixteenth year of life. From sixteenth to thirtyeth of her life she is called “*Taruna*”. From thirtyeth to fiftyeth of her life she is called “*Proudha*”. From sixtieth onwards she is known as “*Vridhdha*”. *Vridhdha* is always unfit and avoided for sexual intercourse.

One should, with a proper understanding, of their age, love (affection) and their capacity of sexual pleasure, indulge, in sexual congress, with a *Baala*, *Mugdha* and *Adhirudha*. Sexual congress with a “*Baala*” increases strength (*Nityam Baalaa Sevyamaanaa nityam vardhayate balam*) with a “*tharuni*” decreases strength (*Tarunee hraasaye chakthim*) and with a “*Proudha*” brings on old age. (*Proudho dbhaasayatthe Jaraan*).

If a man wants to enjoy sexual intercourse in the season of *Greeshma*, *Baala* is suitable; in the cold season (*Hima*) *Taruni* is suitable; in the seasons of *Varsha* and *Vasantha* *Proudha* is suitable.

Even an “old man” if he indulges in sexual congress with a “*Taruni*” he becomes strong. Even a “Young man” if he indulges with an “old woman” becomes old losing his strength.

77. Su. Sutra, Chap. 35.

78. Cha. Viman, Chap. 8.

Considering the age, etc., if one enjoys the company of women, one becomes (*Ayushmantaha, mandajaraa, vapu, varna, bala, Sthira, pachithamamsaa bhavanthi*) long lived, strong, fleshy and have good complexion.⁷⁹

Rules regarding sexual intercourse.

All sexual excesses should be studiously abstained inasmuch as they are sure to produce *Sula*, Cough, *Swaasa*, emaciation, *Pthisis*, Jaundice, *Epilepsy*, *Convulsions* etc. A person who is moderate in sexual intercourse lives a long life, becomes good looking, healthy, strong and firm in his nerves and muscles and becomes capable of averting decay. One may visit his wife on each fourth night in all the seasons of the year, except in summer, when he may visit her once a fortnight.

Women unfit to sexual intercourse.

A woman in her menses (*Rajodarsanakaala*), not amorously disposed, uncleanly in her habits, not sufficiently endeared and endearing and belonging to a higher social order, (*varna-vridhdhi*) older than one's self, affected with any kind of disease, wanting in any limbs, inimically disposed to one's self, in her period of gestation suffering from any *Toni* disease, belonging to the same clan (*Gotra*), or leading the life of an anchorite (*Hermit*), or who is his preceptors' wife, should not be gone unto, by a man. A woman should not be gone unto, in the *Sandhyaas* as well as on the *Parva* days, early in the morning, at mid-day, or in the mid-night. Going unto a woman at an infamous, unwholesome, or exposed to public place, is similarly forbidden. Sexual intercourse by a man, who is hungry or thirsty, or who may be suffering from any disease, or may be angry, or in a cheerless spirit, is strictly forbidden. A man should not go unto a woman, by repressing a natural urging for *Vaata*, stool or urine, or if he is in a weak state of health. Incest with lower animals, unnatural sexual intercourse, obstruction of semen in its passage, as well as sexual intercourse with a woman having any vaginal disease are strictly forbidden, even in respect of a very strong personality.

79. Yog. Ratna, Chap. I

It is highly injurious for a man to indulge excessively in sexual congress, or to enjoy it while standing, or while lying on his back, or to shake his head, at the time. These should not be indulged in by an intelligent and judicious person, even occasionally for pleasure's sake.

Evil effects of the foregoing abuses.

Visiting a woman in her menses (*Asuddhartava Visarjana Kaala*) results in the loss of sight, longevity, and vital power, and should be accordingly considered as a sinful act. The duration of a man's life is diminished by going unto a woman, older in age, or higher in social *Varna*, or unto the wife of his *Curu*; in the morning; or in the evening, or in the *parva dinas*; or unto a woman belonging to the same blood (*Gotra*).

A visit to a woman big with child is extremely painful and injurious to the fetus confined in the womb (*Garbhini*). A visit to a diseased woman, results in the loss of the man's vital power. A going unto a deformed, unclean, spiteful, non-amorous or sterile woman, or at an unclean, infamous, or exposed place is detrimental to the semen and intellect of the visitor.

Similarly sexual intercourse enjoyed by a man at noon-time, or by one who is in an enfeebled, thirsty, or hungry state of the body, in a standing up posture, or in a cheerless mood, brings on an excessive loss of semen, and aggravation of the bodily *Vaayu*. Pthisis due to the loss of Semen is the result (*Pratilomanakshayam*) of over indulgence in sexual matters. Pain, enlargement of the spleen, epilepsy, and even death may follow from sexual gratifications in a diseased state of health. The *Vaayu* and the *Pitta* become aggravated.

An incest with lower animals un-natural sexual intercourse, or that with a woman having a diseased vagina (*Yoni*) is attended with excessive loss of semen and an aggravation of the bodily *Vaayu* and is the cause of the *Upadamsa*.

An act of coition enjoyed by holding the woman on one's bosom or by repressing the natural urgings towards urination or

defecation, as well as a repressing of seminal discharge would help the early formation of seminal concretions (*Sukraasmari*).⁸⁰

Sukraasmari.

Sukraasmari or Seminal Concretions are usually formed in adults; owing to the germination of semen in their organisms. A sudden or abrupt stoppage of a sexual act, or excessive coition tends to dislodge the semen from its natural receptacle in the body. The fluid thus dislodged, but not emitted, finds a wrong passage. The *Vaayu* gathers up the fluid (Semen), thus, lead astray, and deposits it at a place lying about the junction of the penis and the scrotum, and dries up the humidity (watery principle) with which it is charged. The matter thus formed, condensed and hardened, is called the seminal stone (*Sukra Asmari*) which obstructs the passage of the urine, giving rise to pain in the bladder, painful micturition, and swelling of the scrotum. The stone vanishes under pressure in its seat.

Treatment.

A seminal stone or gravel spontaneously brought down into the urinary passage should be removed through the same passage. The Urethra should be cut open and the stone should be extracted with a hook (*Vadisa Yantra*) or any other instrument in the case of its not being expelled out by the passage. The patient should refrain from sexual intercourse, riding on horseback, or on the back of the elephant, swimming, climbing on trees and up mountains, and partaking of indigestible substances for a year even after the healing of the wound.

The *Mutra-Vaha* (urine carrying) the *Sukravaha* (semen carrying) *Mushka Srotas* (cords of the testes), the *Mutra Praseka* (Urinary channels), the *Sevani* (the raphe of the perineum), the *Yoni* (Uterus), the *Gudam* (rectum) and the *Vasti* (bladder) should be carefully guarded at the time of performing a lithotomic operation. Any hurt or injury to the semen carrying ducts, at the time, results in death, or impotency of the patient. A hurt to the cords of the

80. Su. Chi. Chap. 24

testes, begets an incapacity of fecundation. A hurt to the ducts of the urine leads to a frequent dribbling of urine, while a hurt to the *Yoni* or to the raphe of the perenium (*Sevani*) gives rise to extreme pain.

A Surgeon who is not well cognisant of the nature and positions of the *Marmas* seated in the eight *Srotas* of the body such as the *Sevani* (raphe of the perineum), the spermatic Cords (*Sukra-Vaha Srothas*) the cords of the testes (*Mushko-Srotas*) and the corresponding one's in females, the anal region (*Guda*) the urinary ducts (Kidneys) the urine carrying ducts (Uretars) and the urinary bladder and is not practiced in the art of surgery brings about the death of many an innocent victim.⁸¹

Hence these practices should be given up by a man for his welfare in this life as well as for that in the next. On the contrary, repression of a natural and legitimate sexual desire (Celibacy) from a sense of unwise delicacy or shame is a physical sin.⁸² Hence a healthy and passionate man possessed of the necessary fecundating element, under the course of a proper *Vajeekarana* remedy, should cheerfully go unto and duly enjoy the pleasures of company with a girl (*Kanya*), beautiful in looks, tender in years, modest virtuous, equally passionate, cheerful, kindred to him both in physical and mental temperments, and well decked with ornaments. Fatigue after coition should be removed by the enjoyment of a

81. Cha. Chi. Chap. 7

82. It should be always borne in mind that God has implanted this sexual pleasure and desire, in the minds of both man and woman and provided them with the necessary pleasure giving and reproductory organic appendages, only for the propagation of his species and not for the gratification of any diseased or morbid sexual propensity which is found no where else in nature, save and except in debauched human subjects and which lowers them even below the level of brutes. Hence love, should be the essence of the bond, which binds a married couple, and converts them into a kind of human Centaur (Man horse with human body-perfect horseman), the man and the wife, and union sexually considered, should be effected only under the promptings of that sacred instinct in nature, which makes the lillies blow and causes the pollens to unite their fecundating principles with one another and which a healthy unsophisticated human heart can instinctively read as the seedtime of youthful exuberance.

bath, a cool breeze, or a sound sleep. Food or milk, Saturated with sugar and meat-juice, prove very refreshing after the act.⁸³

Period of menstruation (*Pradhama Pushpavathi*).

(*Rajaswala*, *Streedharminee*, *Avira*, *Atreyee*, *Malini*, *Pushpavathi*, *Rithumathi*, *Udakya*).

The period of menstruation, commences at the twelfth year, flowing once in every month, and continues till the fiftieth year.

Just as the petals of a full blown lotus flower are gathered up during the night, so the *Yoni* (Uterus) of a woman is folded up i. e., Os of the Uterus is closed after the lapse of the menstrual flow. (Fifteen days after the menstrual flow).

The menstrual flow, accumulated in the uterus after the lapse of (*Ritu-Kala*—a Proper period of conception) in the course of a month, is led in time by the local *Vaayu* through its specific duct into the mouth of the uterus (*Yoni*) whence it flows out odourless and blackish. This is *Drushtaartava kaala*.

Regimen to be observed in her menses : (Hygiene of menstruation).

A woman in her menses should lie down on a mattress made of *Kusa* during the first three days flow of her *Asuddha* or *Puraana Aarthava*, i. e., *Rajas*. She should take her food from her own blended palms or from earthen saucers, or trays made of leaves. She should live on a course of *Havishya* diet and forswear during the time, even the sight of her husband. After this period, on the fourth day she should take a ceremonial ablution (Purificatory bath), put on a new garment and ornaments and then visit her husband after having uttered the words of necessary benediction.

A woman with unhealthy catamenial flow should forego the bed of her husband during the first three days, of her uncleanness, as well as day sleep and collyrium. She shall not shed tears nor bathe nor smear her person, nor anoint her body, nor pare her nails, nor run, nor indulge in loud and excessive laughter and talk, nor should she hear loud noise, nor comb her hair, nor

83. Su. Chi. Chap. 24

expose herself to draughts, nor do any fatiguing work at all; because if a woman sleeps in the day time, her child of subsequent conception becomes sleepy or somnolent. The woman who applies collyrium along her eyelids, gives birth to a blind child; by shedding tears, a woman gives birth to a child of defective eye sight; by bathing or smearing her body a miserable child; by anointing her body a leper; by paring her nails a child with bad nails; by running a restless one; by indulging in excessive laughter, a child with brown teeth or palate or tongue; by excessive talking a gerrulous child or one of incoherent speech; by hearing loud sounds, a deaf child; by combing her hair a bald one; whereas by exposure to the wind or by doing fatiguing work, she gives birth to an insane child. Hence, these acts are to be avoided.

Prohibited period & the results of intercourse during menstruation.

A going unto one's wife on the first day of her monthly flow tends to shorten one's life and a child born of the act dies immediately after its delivery. The same result is produced by a visit on the second day, or the child dies lying-in-room *i. e.*, ten days after its birth. A visit on the third day leads to the child being deformed and short-lived. A child, which is the fruit of a visit on the fourth day lives long, will be well developed and remain in the full vigour of health. The semen cast in the womb of a woman during the continuance of her menstrual flow does not become fruitful because it is carried back and flows out in the same manner as a thing thrown into a stream does not go against, but is carried away with the current. Hence the husband should forswear the company of his wife during the first three days of uncleanness, when she should also observe a vow of sexual abstinence; the husband should not visit his wife within the month (after the *Ritu-Kala*).

Conception period (*Ritu-Kala*).

(Period of impregnation, fertilisation, fecundation, infusion of the male and the female germs.)

The first twelve nights after the cessation of the flow (*Adrush-taartava-Kaala*) or after the purificatory bath. (*Dwaadasa raatramithi* :—*shodhasadineshu madhye aadyam dinatrayam anthimantha shodasam, Yoni Sankochadinam nagananeeyam*—Dallana. *Atha urdhvamruthu dwaadasaaham brahmaneenaam, yekaadasaaham kshatriyaanaam, dasaaham vaisyaanaam, navaraatraa mitaraasaam. Ruturbeejakaala navelkatha ithyaahurmaharshayah. Atha urdhwa makaala ja maahuh.*—Kasyapa)

Symptoms.

In this period, these symptoms will at once indicate that a woman has secreted a fresh ova and should be deemed as the proper period for conception, as being the time during which fresh ovum (*Suddha Aartavam*) is secreted.

The face of a woman becomes full and lively. A moist and clumsy deposit is found on the body, face, teeth and gums. She feels a desire for sexual intercourse and speaks sweet words, Her eyes, hair and belly drops down. A sort of distinct throbbing is felt in her arms, thighs, mammae, umbilicus, perineum and buttocks. Her sexual desire grows intense and prominent, and its gratification gives her utmost joy and pleasure.

(If ovulation occurs at the time of menstruation and rather initiate the latter and the shed ova are washed out with the (*Puraanaarthava*) menstrual flow, hence, there is a possibility of conception, during the first three days. But when the *Asuddha aarthavam* stops of itself on the fourth day it may also indicate that ovulation and no ovum is left to be fertilized. Hence, the question arises how can there be conception on the fourth day and there after? The explanation is (as in the following quotation) that the ovulating organ fallopian tubes and ovaries through quiescent at the time is again stimulated to activity by intercourse with a male, and new ova are shed which are ready to be fertilized by the semen). Sushruta says :— As a lump of condensed clarified butter melts, expands, if placed by the side of fire, so the ovum of woman is dislodged and glides away in contact with an adult male.

The child conceived during this *Ritu-kaala* after the period (3 days) resembles the man, whom she first sees after ablution on the fourth day, she should see none but her husband. In the absence of her husband at the time, she should first look to the Sun.⁸⁴

Regimen that will enable men and women of impaired semen and ovum and uterus (*Garbha Sayya*), who desire excellent progeny to secure their objective.

A husband wishing to beget a son by his wife should not visit her bed for a month, previous to the fourth day of her menstruation. The wife also in her turn, should observe a similar vow of sexual abstinence for a month before that day.⁸⁵

The man and woman should first be administered the oleation (*Sneha Karma*) and sudation (*Sweda Karma*) procedures. Then cleansed by means of emetics and purgatives (*Sodhana Karma*) and thus gradually brought to a state of humoral concord. Purified thus, the couple, should be given the corrective and unctuous enemata. This should be followed, in case of the man, by the administration of ghee and milk, which have been prepared with the drugs of sweet group; and in the case of the woman, with the administration of oil and black gram.

On the fourth day, she should be massaged, bathed and shampooed, and attired in white raiment. So also the man. Thereafter the two attired in white, wearing garlands, pleasant of disposition, desirous of each other should cohabit, coming together on the even days, counting from the day of purificatory bath if they want a son, and on the odd days if they want a daughter. The two shall cohabit for a period of eight nights, wearing the dress etc. as prescribed. In this manner they procreate the longed for son.

A husband wishing to beget a son by his wife, should not visit her bed for a month (before the day of next flow—*Maasam brahmachaari*). Then on the fourth day of her uncleanness, he should anoint or lubricate his body with *Ghrta*, should partake of food in the afternoon or evening composed of boiled *Sali* rice,

85. Su. Sar. Chap. 2

milk, clarified butter and then visit the bed of his wife. The wife also in her turn, should observe a similar vow of *Brahmacharini*, for a month before that day, on which she should anoint or lubricate her body with oil, partake of food largely composed of oil and *Masha* pulse and then meet her husband at night. After that the priest shall perform the rites (*Garbhaadhaana*) to help the conception of a male child. And after the ceremony the husband then having uttered the *Veda-Mantraas*, and having awakened confidence in his wife, should go unto her on the fourth, sixth, eighth, tenth or on the twelfth night of her *Ritu-Kaala*, for the procreation of a male child.

A visit to the wife on any of the nights leads to the continual increase of the wealth, progeny, and the duration of the husband's life. On the other hand, a visit to one's wife on the fifth, seventh, ninth or eleventh day of her flow leads to the conception of a female child. The thirteenth and the remaining days are condemned as regards intercourse.⁸⁶

If the woman desires a son, saying "May I obtain a son, large of limbs, white with eyes like those of a lion, full of vigour, pure and endowed with genius", then beginning with purificatory bath, she should be given to drink a light porridge of white barely grain, which has been well cleansed, sweetened, with honey and ghee, and diluted in the milk of white cow having a white calf, out of a silver or bronze vessel, regularly morning and evening for a week.⁸⁷

In the forenoon she should eat a dish prepared out of *Sali* rice and barely mixed with curd, honey and *ghee* or with milk; similarly in the evening, her apartments, beds, seats, drinks, habiliments and ornaments should all be of the white colour. At evening and morning time without fail, she should also be entertained with pleasant tales agreeable to her mood. She should feed her eyes on sights of men and women of gentle looks, speech, dress, and manners as well as on sights of other objects, that are white. Her companions too regale her with pleasurable and unwholesome things. So, too shall the husband.⁸⁸

86. Su. Sar. Chap. 2.

87. 88. Cha. Sar. Chaps. 8 & 9.

The Ceremony of Garbhaadhaana.

Every act of the Hindu is sought to be regulated by religion. No virgin (*Pradhama Pushpavathi*) in the *Hindu dharma* can be approached, without first performing the ceremony or rite known as *Garbhaadhaana* or rite of impregnation. Every virgin is supposed to have *Gandharva* as her guardian. The husband after performance of the rites of *Garbhaadhaana* utters the invocation to the *Gandharva* to leave his charge.

The couple shall however avoid sexual congress. Having in this manner passed the week, on the eighth day, she shall have her person washed including the head with waters in company with her husband, and put on new raiment that is white and shall wear white garlands and ornaments.

Procedure on the first Bridal-day.

Garbhaadhaana Vidhi is explained in *Jeevaka Tantra* thus :—

Adha suddha snaathaam (thaa) striyam (stree) chaturdheahani snaana gruhe swethena yevaanyena vaasasaavagunthyaaavalokayanthi suchirdeva-gruham pravisyodhghataagnim prajwalantham gritaakshathenaabhyarchya braahmanameeswaram vishnum skandam cha samprekshyaabhivaadya, nishkramya sooryaachandramasaavithi, nathupretha pisaacha rakshaamsi; suddha snaathamaatraahi sthreeyam vaapasyathi manasaavaabhidyayathi thaa-drusaachaara vapusham praayena janayathi; thasmaaddeva gobraahmanaguru-vruddhaachaaryaan sathaha pasyeth, kalyaanamanaaschasyaath. Nathu sandhyayoh snaanam maidhunam vopayaannaanyamanaa ithi.

As regards the woman who wishes for a son, dark hued, red eyed, broad-chested and mighty armed, or as regards a woman who seeks a son, black of hue, with black, soft and long tress, gleaming of eye and teeth, radiant and high souled; for both these too the sacrificial procedure is the same as described above. The paraphernalia, however, will not be of the same colour, but it shall be made, in either case, to match the colour of the sought-for son, agreeably to the prospective mother's desire.

As regards the Sudra woman, the mere act of salutation to the Gods, the Sacred fire, the twice born, the guardians, the saints and the adepts will suffice.

The factors that determine the different psychological endowments of children are the various mental traits, of the parents, the impressions received by the pregnant woman, the influence of one's own past actions and special mental habits in the previous lives.⁸⁹

On acquainting himself with the wish of a woman concerning the kind of son she would like to have, the physician in attendance, should make her go over in her mind the countries of the appropriate description. Then coming in contact with the people of the country, whose racial type corresponds to the lineaments the woman has wished for, the physician should direct her saying "Thou shalt imitate such and such people in the matter of diet, recreation, care and paraphernalia".

Of the man and woman whose bodies have been treated in the manner described above, and who have paired together, the unvitiated sperm coming into contact with the unvitiated ovum in the unimpaired uterus, through the unobstructed vaginal passage gives rise to a certainty of conception.⁹⁰

Procedure on the first Bridal-night.

The couple who are ardent and mutually attractive in the sexual act, having caused a pleasant-smelling, well spread and comfortable bed to be made, should after partaking lightly of a cordial and wholesome repast, ascend the couch (bed), the man placing the right foot first and the woman the left. During the sexual act, the woman should not assume a prone posture, or lie on her side, for the peristaltic process becomes very powerful, presses on the womb. In the woman lying side ways, happens to be on her right side, then the *Kapha* being displaced, obstructs the entrance to the womb, if on her left side, then the *Pitta* in her being constrained, will burn up both her own ovum and the semen received from the man. Therefore the woman should receive the seed, while lying on her back; for in that posture the humours retain their respective positions. After the consummation the woman should take a douche with cold water.⁹¹

89, 90, 91. Cha. Sar. Chap. 8.

The Erogenous Zones and their significance in woman's love life : (Ashtaanga maidhunam).

Those parts of the body which are especially sensitive to sexual feeling, or are definitely connected with sexual pleasure, are called erogenous (love production) zones. In the female, these zones are more numerous and much more diversified than in the male. In the male, the extremity of the penis-the glans (*Mani*)-is the principal seat of voluptuous sensation. This portion of the penis is covered with a mucous membraneous surface, and is liberally supplied with nerves which are attuned to sexual response. The clitoris of the female however, is in proportion to its size even more abundantly supplied with nerves than the glans of the male. The clitoris is the principal seat of erotic sensation in the female, but there are several other erogenous zones which have a very definite sexual significance in stimulating sexual feeling. Of the sexual parts, the vagina the principal portion of the female organs involved in copulation and the lower end of the womb are also highly sensitive and are included in the erogenous zones; as also are the smaller lips (labia minora) of the external genitalia.

The next important zone in the female is the nipple of the breast, which is a part of the generative system of the woman and directly related to the sexual organs in erotic sensibility as well as in function. Thus the female breasts have always been recognized as a factor in love-making and in stimulating sexual passion. For her part, woman has been more or less conscious of the erotic importance of her breasts and has contrived by the arrangement of dress, partial exposure, and otherwise to make most of this feminine asset.

The lips are also universally recognized as an erogenous zone, as is evidenced in the kiss. The kiss also figured prominently as a prelude to more intimate relations as well as an expression of affection generally. Furthermore, it has been found that in a large percentage of individuals of either sex more or less marked sexual desire is aroused by mechanical stimulation applied to the lips.

As the nerves approach the surface of the body, of which they are the medium for sensation, they split up into a net work of sub divisions. It is an interesting physiological fact to note that one kind of these nerve structures "Kruse's end bulbs" which are unusually large and sensitive, are found principally in the penis, clitoris and lips. Finally the skin of woman on almost all parts of the body is subject to sensual feeling under suitable stimuli.

In a sense these facts are fairly well known, but the knowledge is not in a legitimate way. But this, the average married man lacks a full realization of the importance of the erogenous zones in love making. And because of this shortsightedness, he falls that much short of his potentialities as a successful lover (husband). Just as woman's erogenous zones are more numerous than man's, so too, is her sexual feeling more diversified physically, and her sexual nature more complex psychically. The feminine sex is pre-eminently the affectionate sex. Physical excitements provoke reflexes more readily and more strongly in woman. Her emotionalism, generally speaking, is more demonstrative under all circumstances than man's.

Ashtaanga Maidhunam.

Sexual act is said to be of eight kinds: 1. *Smaranam* 2. *Keerthanam* 3. *Kreeda* 4. *Prekshanam* 5. *Guhyaabhaashanam* 6. *Sankalpam* 7. *Adhyauasaayam* 8. *Kriyaanivrutthi*.

Process of the sexual act.

*Seemantaakshyadhare Kapolagalake Kukshou Kuchorahsthale,
Nabhi Sroni Varaanga Jaanuni thadhaagulphepadeangushtake,
Vaamaange Harinee drusaam maanasijo maasasyapakshadwaye,
Suklasyaama Vibhaagatha Ssuwiharatyurdhwaaha Yevamkramaath.
Seemanthenagharam suchimbanavidhim netre kapoleadhare,
Danthaagram vidadheetha kinchanagharam kukshau sukanthe picha,
Mandam vakshasithaadnam kuchayuge sronau drudham mardanam,
Naabhao kingcha chapetikaam smaragruhe maatangaleelayitham.
Gulpha jaanu padaangushte samaye ghaathanaanicha,
Istha chandra kalaa sparsaa draavaye dambujekshanaam.*⁹²

⁹² Yog. Rat. Chap. 1.

Aachareccha sakalaam rathicharyaam kaamasastravihitaa muanavadyaam Desakaala bala saktyanurodhaa dwaidyatantra samayoktyaviruddhaam.^{92(a)}

*Sevanam yoshithaam kuryaadbudho budhwaa rathi kramaam,
Baalaa mugdhaadhirooddaanaa manuraagavibhavanaath.
Baaleti geeyathe naaree yaavadwarshaani shodhasa,
Thathasthu tharuneegneyaa dwaatrimadvatsaraavadhi.*⁹³

The following *Mantra* should be uttered during the sexual act:

*Ahirasi, Aayurasi sarvatah prathishtaasi dhaathaa thwaa
Dadhaatu vidhaathaa twaa dadhaatu, brahmavarchasaabhavethi.
Brahmaa Bruhaspathirvishnuh Somassuryasthadhaaswinow,
Bhago-adha mitraa Varunau veeram dadathume Sutham.
Ithyuktwa samvaseyaathaam.*

Thou art the day; thou art the life; thou art well established from all sides! May the supporter endow thee; be thou born with the Brahmanic splendour, May *Brahma, Brihaspathi, Vishnu, Soma, Surya* and the Two *Aswins*, as also *Bhaagaa Mitra* and *Varuna* bless me with hero son. Having uttered this, the two should unite.

*Saantwayitwaa thathonyonyam samvisethaam mudaanwithe
Uttanaathanmanaah yoshithishle dangaisusamsthithai.
Thadhaahi beejam gruhnaathi doshaihi swasthaanamaasthithaihi.*⁹⁴

After finishing the sexual act, a bath, an *anulepanam*, cool breeze, sweets, cold drinks, milk, meat juice, *Mudga Yusham*, drinking liquor etc., these one should take. Afterwards one should have a sound sleep lying on a comfortable bed. In this way one should protect one's strength.

Effects of unsatisfactory Love Life.

*Sthree doshaascha traya smutaah, Adhakhapurushotpanna,
Sapatneevihithasthadhaa, Daivaajjaatha truteeyasthu.*

Adhakhapurushotpannam.

The displeasure felt by a female, due to her dissatisfaction in the sexual act by lack of sufficient sexual power in her husband. This is called *Adhakhapurushotpannam*.

92.(a) & 94. Vag. Sar. Chap. 1-34. 93. Yoga Ratna. Chap. 1-497, 98, 99.

Sapathnee vihitam.

The displeasure felt by a woman in the sexual act with her husband who loves another woman and not pleasing to his wife—is called *Sapathnee Vihitham*.

Daivaajjaatham.

The displeasure created by accidental causes is *Daivaajjatham*.⁹⁵ Conspicuous among the factors that influence woman's sexual life for good or evil of course is marriage. When the marriage is everything that it ought to be, particularly when both parties and especially the husband possess a happy insight into the problems of sex there is atleast assured to the wife for the foundation for a healthy amative life. And so much depends upon this factor that it alone may be considered the bed rock of marital harmony, but of the woman's, physical, mental and spiritual well being. Proper sexual gratification—meaning the regular exercise of this urge, free from excesses fulfills a need that has no real substitute in the life of the normally constituted woman. Often the inability of man, will make a deep impression on the mental life of a woman.

Proper Method of Conception.

Conception is said to set in properly when it results from the man, and the woman, uniting in sexual congress, after the bodies, and organs have been purified as said before, according to the ordinances; when undiseased (pure) semen combines with undiseased *Rakta* (ovum); when the generative organ of mother is not vitiated by any obstruction, and lastly when the womb also is perfectly free from every fault; even as a colouring matter (dye) produces excellent colour by only falling upon a piece of cloth that is perfectly white and free from filth of every kind.⁹⁶

Verily the semen acts like milk which when mixed with curd, in consequence of the fermentation that sets in,⁹⁷ i.e., the Semen is endowed with *Soma Guna* like milk and the *Artava* presents the opposite property *Agniguna* like curd.

95. Saarangadhara Chap. 6-183.

96. Cha. Sar. Chap. 8.

97. Cha. Sar. Chap. 8.

The woman of child bearing stage, whose generative organ, after discharging *puraana rajas*, and producing *nava aartavam*, and is free from any ailments, and who has gone through a purificatory bath, on the completion of last menstrual period, a man of unvitiated sperm unites, then impelled by organism there, flows from every cell and tissue that quintessence of bodily secretions the Semen.

Just as juice exists in sugar cane, butter in the curds, and oil in the sesame seeds, even so semen pervades the entire body. That semen trickles down during copulation between man and woman stimulated by warmth of erotic acts and desire like water squeezed out of a cloth. As a result of stimulation desire, fluidity, viscidity, heaviness, atomicity, and tendency to flow out, and the speed of the motion of *Vaayu*, as a result of these eight factors, semen which is known as the *Formative principle* of all bodies in the Universe, is secreted in the body.⁹⁸ That semen having thus been set into motion, by the ecstatic "Self" and informed by it, emerging from the man's body mixes with the (Ova) *Aartavam* through the proper channel.⁹⁹

Even as seeds, whose productivity has not been burnt by fire, when sown, produce their respective natures, so that paddy produces paddy and barley produces barley, so, the heads of causes laid down above produce male and female offspring.¹⁰⁰

Symptoms of recent fecundation.

A sense of fatigue and physical languor, thirst, lassitude and weariness in the thighs, suppression of the flow of semen and ovum, (in the female) out of the uterus, and throbbing in the organ after coition.¹⁰¹

Concluding Note.

The whole chapter is devoted to the study of the problems of healthy progeny as is found in *Ayurveda*. The very foundation of life, is rooted in the intricate phenomena of sex. All forms of life, except the lowest depend upon sex for the preservation of species,

98. Cha. Chi. Chap. 2.

100. Cha. Sar. Chap. 8.

99. Cha. Sar. Chap. 4.

101. Su. Sar. Chap. 2-10,

when an individual in any species is sexually incomplete, undeveloped, or pathologically afflicted, that individual is usually rendered incapable of reproducing his kind. When a human being, in particular, is not sexually normal, through whatever cause, whether hereditary or acquired, that condition is a serious hindrance to healthy, happy life. Sexual maladies, and disabilities may result from many causes as we have already studied, and practically all except those that have been inherited, may be traced to the common source of ignorance.

There is no denying this fact, however much people will insist upon avoiding the issue and closing their eyes to the results. No one can estimate the damage that has been done by the traditional practice of placing a ban concerning the sex side of life. Physicians, Lawyers, and others, who are constantly brought into intimate contact, with the private affairs of their patients and clients, know that the lives of untold numbers of men and women have been ruined by lack of understanding of their sexual nature, and that innumerable marriages have been shattered by a basic ignorance of these sex problems.

The two paramount urges.

After the universal urge of hunger, which an expression of the instinct of self preservation, there comes the quite equally universal impulse for reproduction, which is essential as the former, and it is the instinct for the preservation of the species. The attempt to prepare to meet the problems of life without recognizing, either of these two supreme impulses is doomed to frustration or failure. The problem of nutrition an economic one, is conceded by all. Every individual in advance of adulthood, is vaguely impressed with the inexorable economic struggle, even if he does not understand, the mechanism behind it. The refinements of civilization, and the opportunities of culture have extended the ramifications of sex urge, and intensified the love-impulse. Notwithstanding this increased importance of the role of sex in modern life, the subject problems of healthy progeny, which our *Maharshis* taught us, have received less consideration, than primitive peoples have given it, instead of more as it deserves.

Many variations of nature worship.

In ancient times, the image of the *Phallus*, or of the external portion of the external genitalia (*Upastha*) was the most proper talisman worn by both men and women as an amulet or Charm to possess the power of conferring virility or fruitfulness upon the wearer. Similar amulets, but more disguised in their symbolism, are still popular articles of feminine adornment.

Other common terms indicative of sex symbolism are the Sanskrit words *Lingam* signifying the male organ, and *Yoni* the female organ.

The windows, doors and other apertures of temples, churches, *Radhaas*, and cathedrals are often made in shapes to suggest the *Yoni* and frequently serve as recesses for the placing of religious statuary. These with other characteristic ecclesiastical symbolism, emphasize the unbroken traditions that have motivated religious feeling by consciously or unconsciously identifying the phenomena of sex with the supernatural.

Sex worship by modern writers, is usually referred to as *phallicism*—from the Greek noun that has been adopted into English, in its latinized form, *phallus*. It refers, with its adjective *phallic*, to the male organ of generation (*Sisinam*).

The legend of St. Patric banishing the snakes from Ireland, merely symbolizes his action in driving out phallic cults, which were represented by the exposure of the *Phallus*, or of the snake representation one of the most prominent symbols signifying procreation. Here in *Bharatakhanda*, *Naga Puja* is commonly performed by women for procreation.

Early Buddhist texts throw a flood of light on Ayurveda in Buddha's time. The science of music, eugenics and erotic were developed. The science of music was concerned with four main subjects, dancing, singing, playing on musical instruments, and dramatic performances. In connection with the instrumental music (*vaaditu*) we are supplied with a classical list of musical instruments, which is more or less the same as we find in *Vaatsaayana's Kaamasootra*. With dancing, singing and instrumental music was

associated also the ballet recitation. The study of physical and other characteristics of men and women with a view to determining the sexual types to which they belonged and the training of the courtesans in music and other pleasing arts, came within the scope of the science of eugenics and erotic.¹⁰²

Men sacrifice their lives for the women they love; and the women for the men they love. The sacrificial ardor of motherlove for the child is too well known to require elaboration. The love impulse extends far and wide and embraces every human relationship where a strong attachment is present.

This mighty, universal impulse which does so much to make life worth while is indeed a complex, considering how universally throughout nature is the sacrificial aspect of the love instinct, largely automatic in its expression, it would seem, to be a biological process of which sex in its broadest interpretation is the motivating factor.

In considering the subject "Problems of Healthy Progeny" the caption of the present chapter—it is not only pertinent, but imperative in an honest discussion of the theme, to indicate the background of man's traditions in the realm of sexual interest, as well as to allude to the far-reaching biological implications of Sex and married life.

(A Garland based on Original Sanskrit Texts).

— DR. VALLURU SUBBA RAO



102. Culture of Ancient India (6th century B. C.) by Bimala Charan Law.

CHAPTER III

I

INTRODUCTION

Aayurveda means knowledge of the science of life. Aayurveda is said to be 'Anandi' or it is existing from times immemorial.* The knowledge was handed down from *Brahma* to *Daksha Prajapathi*. He transmitted the knowledge to *Aswani Kumaaraas*. They passed it on to *Indra*. He taught *Atri Rishi* and he passed it on to *Agnivesa*.

Aayurveda was divided into eight parts or Tantras: Salya, Salakya, Kayachikitsa, Bhoota Vidya, Koumarabhritya, Agada, Rasayana and Vajikarana.

Among the followers of Aayurveda then were two prominent schools:

(1) The school of Physicians was headed by the sage Aatreya. All the six great books (*the Samhitas*) written by his six pupils—Agnivesa, Bhela, Jatukarna, Paraasara, Haarita and Kshaara-paani—as also many others by Viswaamitra, Kharanada etc., have been lost altogether. But only Agnivesa Samhita, revised and recast by Charaka, revised and supplemented by Dridhabala survives in skeleton and is known as famous Charaka Samhita. Bhela and Harita Samhita are also found in a skeleton form.

(2) Of the School of surgeons headed by the royal master Dhanwantari, about which we are immediately concerned, all the original books by his pupils-Susruta, Aupadhenava, Ourabhra, Pouskalavata, Gopurarakhita, Bhoja have passed into oblivion.

* Vagbhata - Ashtanga Hridaya Sutra, Chap. 1.

Only one of them, the Susruta Samhita as a revised and recompiled summary of the great original (called Vriddha Susruta) survives to tell the tale of mutilation. So also the great work by Videha on the E. N. T. and diseases of the eye as well as large samhitas by Nimi, kankaayana, Gaargya, Gaalava, etc., are also lost. On children's diseases none of the works of Jivaka, Parvtaka, Hiranyaaksha are available. On toxicology except Kaashyapa Samhita other works are also lost (Now Jivaka tantra is available in mutilated form).

Evidence of their existence.

But these works have been cited by commentators like Dall-hana, Chakrapaani, Vijaya Rakshita, Srikanthadatta, etc., whose authenticity cannot be doubted. Many of these works existed about 1000 years ago when these commentaries were written. Vagbhata seems to have lived in 5th or 6th century A. D. He was also a buddhist of Sind. From a close study of these works we see that the decline of Ayurveda had already begun in Vagbhata's time and finding that the old literature was perishing fast, he worked hard to summarise all the medical information good, bad or indifferent that he could lay his hands upon. Regarding the state of learning our country in ancient times, I would like to quote the following passage from Aryan Medical Science: "The country was a cradle of learning for the whole world and history bears witness to the fact that many a nation that now walks with its head erect would have been nowhere had it not borrowed considerably from the intellectual storehouse of the ancient Hindus. This country was at the pinnacle of glory when other nations were not in existence or were wallowing in gross ignorance. Most of the sciences, which the present century boasts of so much were not unknown to the ancient Hindus and one has but to look into their writing to see whether the truths propounded by them some thousands of years ago do not still endure in their natural freshness." Hindus were the first to cultivate Astronomical Science (Jyotisha). In mathematics the Hindus had attained a high degree of proficiency; they invented the decimal system. The world owes to them the invention of numerical symbols; they also discovered geometry and trigonometry. One sage Panini was the first to teach

the formative principles of words and his system of grammar called Ashtadhyayi is the first in the world. Music appears to have been cultivated to the highest pitch of perfection by Hindus. Dhanurveda is an old science which flourished to a great extent among Kshatriyas. Hindu Law is as old as their religion. India out-distances all the countries in the world in the domain of philosophy. During Asoka's reign many hospitals were in existence not only for human beings but also for animals. Detailed descriptions are given as to how the wards are to be built.

Regarding the achievements made by the Hindu surgeons, in Rigveda we find the use of artificial limb as a substitute for a limb accidentally lost. From Mahavagga we learn that Jivaka, the personal physician of Buddha practised cranial surgery with success.

It is very often asked whether there is surgery at all in Ayurveda. It is quite evident that these people though born and bred up in this country do not know the history of their country and the rich heritage they have acquired from their ancient Rishis.

I therefore like to quote a few testimonies from some of eminent modern western scholars. Dr. Charles, a late Principal, Govt. Medical College, Calcutta has expressed.

"What you Hindus had in perfect state 2000 years before, I am going to teach you (students in so imperfect a state."

Professor Weder says :

"In surgery too, the Indians seem to have attained a special proficiency and in this department, European surgeons might perhaps even at the present day still learn something from them as indeed they have already borrowed from them the operation of Rhinoplasty."

Encyclopedia Britanica mentions among a lot of other things the following facts :—"Susruta describes more than one hundred surgical instruments. The favourite form of splint was made of thin slips of bamboo. Dr. Wise used this admirable splint for fracture and it was subsequently adopted in the English army

under the name of patent rattan cane splint. It further mentions with a high tribute of praise and approbation the skill and dexterity of ancient Ayurvedists in the extraction of foreign bodies, treatment of inflammation by antiphlogistic regimen and appliances, amputations, removal of tumours enlarged lymphatic glands, the use of trocars in the abdominal dropsy and hydrocele, treatment of hernia, fractures, dislocations, wounds and aneurisms, opening of the abdomen for removing intestinal obstructions, lithotomy, plastic operations for restoration of the nose, ophthalmic surgery including extraction of cataract, obstetric operations including caesarean section and crushing of foetus and good many other things."

Sir William Hunter says that the surgery of the ancient Indian physicians were bold and skilful. They performed amputations, lithotomic operations on the abdomen and uterus and Rhinoplasty which European surgeons have now borrowed. They cured hernia, fistula and piles, set broken bones and dislocations, were dextrous in the extraction of foreign substances. They were experts in the disease of women and children and in midwifery not shrinking from the most critical operations. They devoted great care to the making of surgical instruments and to the training of students.

Lithotomic operations.

Elaborate instructions are given for making perineal incisions as well as about the care and general management of the patient.

Amputations.

They were freely made and medicated wines were given to the patients as anaesthetics. The removal of cicatrix until it becomes of the same colour with the surrounding skin and the growth of the hair thereon are suggestions which we find nowhere else.

Ophthalmic surgery.

76 varieties of ophthalmic diseases have been described. The mode of operations which have to be performed in each case are

elaborately described. They compare favourably with the modern methods of ophthalmic surgery. Use of fish (*rohitaka*) liver oils have been described in night blindness. Susruta was aware of the fact that the angle of reflection is equal to the angle of incidence.

Midwifery.

It is here that one is very much impressed with the greatness of Susruta. The different turning, flexing, gliding movements, application of forceps in difficult labour and other obstetric operations involving the destruction and mutilation of the child such as craniotomy were first systematically described in Susruta Samhita long before fillets and forceps were dreamt of in Europe and thousands of years before the birth of Christ. He advocates caesarean section only in cases of definite cephalo-pelvic disproportions and where medicated plasters, fumigation etc. are not sufficient to effect a natural delivery. His directions regarding the management of puerperal state, lactation and management of the child and the choice of the wet nurse are substantially the same as are found in the modern scientific works of European authors.

Now it might be asked why the science and art of surgery which was successfully practised in ancient India is not being practised now. So let us consider the causes of the downfall of Hindu Surgery.

1. They gave up human dissection because it occasioned ceremonial uncleanness.
2. Interference of priests in India as in Europe played an important part. They began to cure diseases by spells, charms and drugs.
3. The patients always dreaded a surgeon's knife, especially when the use of a general anaesthetic was unknown. Hindu surgeon used actual cautery and caustics more frequently than the instruments. As such they gradually neglected surgical operations.
4. Hindus have a great regard for writings of their sages. So the knowledge became stereotyped and no improvement was made.

So also in Europe Galen held a sway for over 2000 years over his profession.

5. One of the potent causes is the rapid spread of Buddhism in India. Buddha allowed the surgical treatment of boils by knife but prohibited the use of lancet in the treatment of fistula in and not even clyster.
6. No science can flourish without the support of the Govt. of the day.

II

HOSPITALS AND THEIR EQUIPMENT

Nowadays we have seen that hospitals play an important part as teaching and research centres in a country. During the time of Asoka there were hospitals all over India for the treatment of not only human beings but also for animals. Even before Asoka hospitals flourished in India. During the time of Charaka we find the beginning of such institutions which were meant mostly for the rich patients. Charaka has advised to build the hospitals as follows :

"The Engineer should erect a strong and spacious building, well ventilated and free from draughts. The scenery should be pleasing. It should neither be behind a high building nor exposed to the glare of the sun. It should be away from smoke and dust. There should not be touch, test, form and smell. It should be provided with stairs and large wooden mortars and pestles. There must be sufficient ground for the construction of privy, bath room and kitchen. Well trained and obedient servants should be on the staff of the hospital. The patients should have companions who are good singers and who are well versed in telling tales, history and mythology. Various kinds of animals like lava, Kapinjala, bare and sheep should be kept in stock for the amusement of the patients."

Susruta states that patients who have undergone surgical operations must be provided a separate room and states as follows : *

“Patients suffering from surgical diseases such as an inflammatory swelling, wounds etc. should from the very commencement of their illness, confine themselves inside a clean house situated in a wholesome locality free from draughts and not exposed to the glare of the sun. For in such a building, constitutional, mental and accidental diseases are not likely to occur. In that room the bed for patients should be soft, spacious and well arranged. One patient should lie down his head pointing towards the east and keep there some weapon for his own protection. On such a bed, the patient can lie comfortably and turn to his sides at pleasure. He should be surrounded by his dear friends for their sweet words to relieve the pain of inflammation. The female friends, who are likely to excite sexual impulse (Gannyaanaan Shreenam) should however, be avoided. He should observe strictly the orders of the surgeon as regards his food, drink and mode of living. He should have his hairs clipped and nails pared short, be pure in his person, put on white clothes and devote himself to religious duties. A light should be kept burning, garlands of flower, weapons etc. should be provided in the room to ward off the demons. He should have his hairs clipped and nails pared short, be pure in his person, put on white clothes and devote himself to religious duties. A light should be kept burning, garlands of flower, weapons etc. should be provided in the room to ward off the demons. He should be cheered and inspired by pleasant stories and the physicians and the priests should attend the patient morning and evening. Pastils made of sinapis Nigra and Azadirachta Indica with clarified butter and salt, should be burnt in the room morning and evening for ten days continually.

The inflamed part should be fanned with a chamar or yolk-tail. Sleep during the day, exercise and sexual intercourse must on no account be indulged in.”

*Surgical Instruments of the Hindus, Vol. I, P. 42.

Susruta has classified operations into 8 varieties :

- (1) *Chedya* – incising.
- (2) *Bhedya* – excising.
- (3) *Lekhya* – scarifying.
- (4) *Vedhya* – Puncturing.
- (5) *Eshya* – Probing.
- (6) *Aharya* – to extract foreign bodies.
- (7) *Visravaya* – to evacuate fluids.
- (8) *Seevya* – to suture.

Before commencing any operation the surgeon should equip himself with the following :— *Yantras* – (Appliances), *Sastras* – (instruments), *Kshara* – (caustics), *Agni* – (Cautery), *Salaka* – (Probe), *Sringa* – (Horn), *Saloka* – (Leeches), *Sutra* – (thread), *Patra* – (leaves), glue, honey, oil, pots filled with hot and cold water. Servants who are well trained for assisting the surgeon in his operations and who should love to serve the patients and who must be strong and efficient in carrying out all sorts of works entrusted to them by the Surgeon.

The surgeon himself should be fearless, quick in conducting operations; the instruments which he uses must be quite sharp so that the pain may be lessened. He must not be sweating and shivering, and should have complete knowledge of *Ama* (unrip) and *Pakva* (rip) vranas so that he can decide when to operate and when not to operate.

Yantras (applicances).

There are 101 varieties. Out of them the most important Yantra is the hand of the surgeon as the entire operative procedure depends on the skilful use of the hand.

Yantras are divided into six varieties :

- | | |
|--|----|
| 1. <i>Swastikas</i> – Forceps | 24 |
| 2. <i>Sandamsas</i> – Tongs | 2 |
| 3. <i>Talas</i> – similar to tongs | 2 |
| 4. <i>Nadis</i> – Tubular instruments | 20 |
| 5. <i>Salakas</i> – Bougies | 28 |
| 6. <i>Upayantras</i> – clothes, twine etc. | 25 |

Shastras (instruments).

They are twenty in number :

- | | |
|------------------------|-------------------------|
| 1. <i>Ardhadhara</i> | 11. <i>Mandalaagra</i> |
| 2. <i>Atimukha</i> | 12. <i>Mudrika</i> |
| 3. <i>Ara</i> | 13. <i>Nakha sastra</i> |
| 4. <i>Badisha</i> | 14. <i>Shararimukha</i> |
| 5. <i>Danta Sankhu</i> | 15. <i>Suchi</i> |
| 6. <i>Eshani</i> | 16. <i>Trikurchaka</i> |
| 7. <i>Kara Patra</i> | 17. <i>Utpala Patra</i> |
| 8. <i>Kartarika</i> | 18. <i>Vridhipatra</i> |
| 9. <i>Kutharika</i> | 19. <i>Vrihimukha</i> |
| 10. <i>Kusha Patra</i> | 20. <i>Vetasa Patra</i> |

The eight types of operations described above have to be done by the use of these instruments. For example, Mandalagra and Karapatra are used in Chedana and Lekhana etc. The dimensions of these instruments have been described by Susruta in great detail. They must be made of steel, easy to handle, sharp with flawless edges, good looking (not rusty) and must be contained in handsome portable wooden boxes with separate compartments for each instrument.

Anu Sastras.

Where proper instruments cannot be procured and in case the patient is a child or if the patient is afraid of the knife, bamboo, crystal, glass, Kurvinda (a variety of stone) leeches, fire, caustics, nail, Kareera, Shefali, hair and finger may be used instead of the instruments. Three modes were adopted by the surgeons in the treatment of their cases—by cutting instruments, by caustics and by actual cautery.

To acquire dexterity the pupils were asked to practise different kinds of operations on several substances *i. e.*, on cucumber, gourd etc. and on urinary organs of dead animals. Venesection was practised on the vessels of dead animals and on the stalks of water lily. Ligaturing and bandaging were practised on dummies, cauterisation on pieces of flesh, catheterisation on unbaked earthen vessels filled with water.

Instruments.

Iron & Steel: Susruta says that a wise surgeon should get the instruments made of pure steel and with sharp edges by an expert black-smith who is skilful and has experience in his craft.

For application of Lekhana collyrium

Copper: Copper needle in the operation of cataract.

Tin: Used as a material for blunt instruments.

Tin plates are used to surround a tumour before the application of actual cautery. Tubes for fumigation.

Lead: Probes for application of collyrium.

Bellmetal: do.

Gold and silver: Charaka advocates the knife made up of gold or silver or steel. Chakradatta mentions a needle made of gold to cauterise trichiasis. In Yogartnakara a cautery of gold is mentioned to burn the fistulous track round the anus. Horns of animals were used as suction apparatus.

III

KNOWLEDGE OF ANATOMY OF THE
HINDU SURGEONS

No satisfactory knowledge of human anatomy can be attained without having recourse to human dissections. Susruta himself a practical surgeon was the first to advocate the dissection of dead bodies as indispensable for a successful student of surgery. A bungling surgeon is a public danger and Susruta says "that is incapable of flight." Susruta and Charaka have never advocated the practice of animal dissections. But comparative anatomy was studied by Susruta during the time of sacrifices. Susruta knew full well that a knowledge of human anatomy was the first requirement of surgery.

The number of bones according to Charaka and according to the law books of Vishnu and Yagnavalkya is 360. whereas accord-

ing to Susruta the number is 300 only. There are 120 bones in the extremities, in the back, sides of the chest and in the pelvis there are 117 bones and above the neck 63. There is difference in the number of bones described by Charaka, Vagbhata and Susruta as shown in the table (taken from Studies in the medicine of ancient India, P. 93) see page 16. Susruta describes 210 joints—68 in the extremities, 59 in the trunk and 83 above the neck. The number of Snayus (sinews and nerves) is 900. There are 500 pesis or muscles—400 in the extremities, 66 in the trunk and 34 above the neck. Women have 20 pesis more than men. There are 107 Marmas or dangerous points about which the surgeon should be well conversant. They are further divided whether the wounds are forthwith fatal or cause death only after sometime or are fatal after extracting an arrow or some other foreign matter or only cause lameness or pain.

There are 700 Siras or vessels starting from the navel moistening the body, just as a garden is watered by water trenches. There are 24 Dhamanis. Ten Dhamanias which go upwards from the navel cause breathing in and out, yawning, sneezing, laughing and speaking. Ten which go downwards conduct wind, urine, faeces, sperm and ovum and the remaining four running circular by through the body with innumerable branches, throw out perspiration. Susruta describes seven layers in the skin. This gives us an idea of the thorough knowledge of anatomy that the Hindu surgeons used to possess before conducting operations.

A surgeon who wants to obtain a definite knowledge of human body should properly clean the body so that he may know the position of the organs. He must correlate the knowledge he thus obtained with the knowledge that he has obtained from the texts and have clear ideas as to the position, course and extent of each structure in the body. The body that is selected for dissection should be of a man with complete limbs and he should not have died of poisoning or from a chronic disease as several morbid changes will have taken place in such cases. He should not have been more than 100 years of age.

After removing the faecal matter from the intestines the body should be wrapped in Munja or grass or barks of trees or hemp

and put inside a cage which must be firmly fastened so that it may not flow off by the current in a covered place and thus allowed to decompose. After seven days the thoroughly decomposed body should be taken out and very slowly rubbed with a brush made of khas or Usira or hair or bamboo or barks of trees examining with the eyes every part both external and internal beginning with the skin. Hoernle says: "probably it will come as a surprise to many as it did to myself, to discover the amount of anatomical knowledge which is disclosed in the works of the earliest medical writers of India. Its extent and accuracy are surprising when we allow for their early age—probably the sixth century before Christ—and their peculiar methods of definition of the practice of such dissection in ancient India we have direct proof in the medical compendium of Susruta and it is indirectly confirmed by the statements of Charaka. It is worthy of note however, that in the writings of neither of these two oldest Indian Medical writers is there any indication of the practice of animal dissection."

* Statement referred to in page 115.

	I VAGBHATA	II SUSRUTA	III CHARAKA
1. Nails ...	20	—	20
2. Phalanges ...	60	60	60
3. Long bones ...	20	20	20
4. Bases (Sthana) ...	4	4	4
5. Clusters (Kurcha) ...	8	8	—
6. Ankle bones & wrist bones	8	8	6
7. Legs and forearms	8	8	8
8. Heels ...	4	4	2
9. Knees and elbows ...	4	4	4
10. Thighs and arms ...	4	4	4
11. *Ribs, sockets etc ...	72	72	72
12. Back ...	30	30	45
13. Breast ...	8	8	14

Contd. on Page 114

* Studies in the Medicine of ancient India P. 93.

(Contd.)

		I VAGBHATA	II SUSRUTA	III CHARAKA
14. Pubes	...	1	1	1
15a. Sacrum	...	1	1	-
15b. Anus	...	0	1	-
16. Hips	...	2	2	2
17. Collar bones	...	2	2	2
18. Shoulder peaks	...	2	-	2
19. Shoulder blades	...	2	-	2
20. Cheeks	...	2	2	0
21a. Ears	...	2	2	-
21b. Eyes	...	-	-	-
22. Temples	...	2	2	3
23. Wind-pipe (Jatry)	...	1	-	1
24. Palate	...	1	1	2
25. Neck (Griva)	...	13	9	15
26. Wind pipe (Kantha)	...	4	4	-
27. Jaws	...	2	2	3
28. Teeth	...	32	32	32
29. Sockets of teeth	...	32	-	32
30. Nose	...	3	3	1
31. Cranium	...	6	6	4
Total		360	300	360

IV

TREATMENT BY CAUSTICS (Kshara Karma) AND BY ACTUAL CAUTERY (Agni Karma)

Of all the Sastras and Anusastras Ksharas or caustics are said to be the best as it is capable of Chedana (incising), Bhedana (excising) and Lekhana (scarifying) and acts in cases where the disease is caused by Tridoshas and it is also suitable for internal administration. There are two varieties of Ksharas viz. those

that are meant for external application and the other for internal use. External application is done in cases of skin diseases (many varieties of Kustas), fistula-in-ano, chronic ulcers, sinuses, abscesses, diseases of mouth, throat disease, etc. They are used internally in cases of poisoning, diseases of the liver, indigestion, loss of taste, lymphadenitis, stone in the bladder, internal abscesses and in haemorrhoids. Ksharas should not be used in cases of fever, vomiting of blood, in children, old people, weak persons, heart disease, pregnancy or menstruation, diseases of the head, anaemia, after taking purgatives in general oedema.

The entire portions of certain trees including their leaves and roots, like Palasa, Apamarga, Agnimantha etc. are burnt and about 6 times the quantity of water is added and to it the urine of a cow is added; the whole thing is sieved through a cloth at least twice and boiled in a big pan and stirred well with a big spoon. The fluid gradually becomes viscus, red, clear and sharp. It is sieved through a piece of cloth and boiled again with the addition of lime stone, Sukti, Sankha etc. It must be neither fluid nor very thick. The Kshara that is so prepared must be neither sharp nor mild, white in colour, sticking, it should not become watery on exposure and it must act quickly.

Three types of instruments are recommended for the application of caustics.

- (1) Dari— this is made of wood and resembles a spoon.
- (2) Salaka or rods
- (3) Kuncha which resembles a brush.

The value of the application of caustics is summed up by Velpeau*: "Nevertheless caustics possess some advantages which cannot be denied them. As they do not give the idea of an operation, they shake less the minds of the patients, they are accepted with more calmness and with indefinitely less effort than the action of the knife. Mortifying the tissues step by step, they give rise to no effusion of blood and affect less deeply the economy than the operation, properly so called. Women treated in this way do not

* Velpeau: Cancer of the breast: Marsden (Trans).

require to remain in bed or to consider themselves as patients. The dressings require little care and do not demand absolutely the intervention of the surgeon. The wound cleans itself very rapidly in general and once cleaned it proceeds speedily towards cicatrization without exempting wholly erysipelas, phlebitis or purulent infection, as some surgeons have asserted, there is not withstanding, some reason for supporting that they expose the patient somewhat less to these troublesome complications than the operation".

Agnikarma or Cauterisation.

Cauterisation is done in the cases which are not amenable to treatment by caustics, drugs and by operation by instruments and the cases so treated do not recur. It is particularly indicated in tumours, fistula, swelling of the testicles, elephantiasis, enlarged glands, decolourisation of the skin, indolent ulcers, head-ache, haemorrhoids and other diseases. Cauterisation can be done not only with red-hot of various forms like Salaka, Soochi, etc. but also with fluids like honey, syrup, oil or wax brought to the boiling point with cowdung or other hot objects. Cauterisation is contra indicated in cases where caustics have been applied, when there is foreign body inside, ruptured intestine, and when there are multiple ulcers over the body. The patient is branded until there is buzzing noise, bad smell and shrivelling up of the skin is seen. After branding, honey, ghee and ointments and plasters are applied. In the application of actual cautery, the following articles are used :

1. Pippali or piper longum	Used in diseased skin
2. Goat's dung	
3. Teeth of a cow	
4. Sara	
5. Probes or Salakas	Used in diseased muscles
6. Jaambavaustha	
7. Different kinds of iron	
8. Honey	Used in diseases of vessels, joints and ligaments
9. Treacle	
10. Ghee	
11. Oil	

If cauterisation is continued for more than the required period, there will be elongation of muscles or shortening of muscles, burning sensation, excessive pain, destruction of vessels and nerves, thirst, loss of consciousness, increase in the depth of the ulcers, and even death.

In such cases, treatment must be done as for "Pitta Visarpa".

V

BLOOD-LETTING

There are two methods by means of which this blood-letting is done : (1) by the application of leeches. and (2) by venesection.

1. Application of leeches.

This is the mildest of all the methods used for extracting blood. They are particularly suited to princess, rich people, children, women, old men, nervous and delicate persons. Twelve varieties of leeches are described. Six of them are poisonous and six non-poisonous. Poisonous leeches are :

1. *Krishna* : It has the colour of black collyrium and well defined head.
2. *Karura* : It is long like an eel with elevated stripes across the abdomen.
3. *Alagardda* : It is covered over with hair and has large sides and black mouth.
4. *Indraayudha* : It has rainbow coloured longitudinal stripes on the back.
5. *Samudrika* : It is of dark-yellow colour and has spots just like flowers.
6. *Cochandana* : It has a befid tail like the scrotum of a bull and a small mouth.

When a person is bitten by these poisonous leeches, there will be oedema, pruritis, loss of consciousness, fever, burning sensation, vomiting, splitting pain and numbness.

The non-poisonous leeches are :

1. *Kapila* : The sides have the colour of "Manisila" and has the colour of green-gram on the back.
2. *Pingala* : It is slightly red in colour and has a round body and moves quickly.
3. *Shankumukhi* : It is of the colour of the liver, sucks quickly and has a long and sharp mouth.
4. *Mooshika* : It has the shape and the colour of a rat and emits disagreeable odour.
5. *Pundarikamukhi* : It has the colour of green-gram and the mouth resembles a lotus.
6. *Savarika* : It is slimy, and has the colour of the lotus leaf, measures 18 fingers breadth and it is used in vaterinary practice.

The non-poisonous leeches live in meadows and in fresh water. They must be caught with a piece of wet leather and kept in a large new earthen pot filled with muddy water, green fungi and bits of certain roots. The water must be changed every third day and the pot every seventh day.

Method of application of leeches:- The patient is asked to lie down and the part to which the leeches are to applied is to be rubbed with powdered cowdung and earth without causing pain. The leech is smeared over with a paste containing turmeric, mustard and water and kept in a pot of water for some time and then washed thoroughly. The body of the leech is covered with a piece of wet cloth and then applied to the part. To fix it quickly, put a drop of milk or blood or scarify the part when the leech has sucked sufficient quantity of blood, a small quantity of salt may be sprinkled on its head to make it drop off. Then the leech is to be put upon some powdered rice and it should be held by the left thumb and fingers at the tail end and by means of the fingers of the right hand it must be pressed lightly again and again towards the mouth end, until the blood that it has sucked is vomitted. When once it has vomitted, it must be put in fresh water. If it is

moving and active, it may be used again but if languid it must be thrown away. The leech bite is to be smeared with honey, cold water and astringent substances or polutices may be applied. They suck bad blood just like a swan sucking milk from a mixture of water and milk.

2. By venesection.

Siravyadha blood letting is done with sharp instruments and as such it is a more severe form of blood letting than the application of leeches. Bad blood causes abscess, erysipelas, enlargement of the spleen and liver, loss of appetite, fever, diseased mouth, eye and head, loss of consciousness, thirst and salty taste in the mouth. In these cases, by venesection, superfluous blood is let out. Blood letting should not be done for those who have undergone "Panchakarma" treatment or have taken oily substances, or have no bad blood, those who are below sixteen or above seventy years, women who are pregnant or who are lying in, and those suffering from asthma, cough, vomiting of blood, diarrhoea, oedema, anaemia and ascites. Kutharik Vrihimukha are used in blood letting. Before the operation, the doctor should get ready with all the necessary things for the operation. The patient should be anointed and he must be given the meat of wild animals and rice and he is seated in a soft seat. A servant should put a piece of cloth round his neck from the backside and hold him fast without causing cheking. The vein selected depends on the diseased part. In the case of the diseased head and the eye, veins of forehead, nose or the external canthus is selected. In ear diseases, the veins of the ear, in nasal diseases a vein on the point of the nose in madness a vein in the chest, on external canthus and on the forehead and in deep seated abscesses those in the sides and between the armpit and the nipple have to be opened. The canet is inserted quickly neither too deep nor superficial in the middle of the vein without injuring the dangerous places, If the blood does not flow easily in required quantities, the spot should be rubbed with a paste of lampblack, salt, oil and "Tagara", when the blood flows easily. When sufficient quantity of blood is taken out, the spot is moistened with hot oil and salt. If the

patient becomes unconscious, cold water and fanning should be used to bring him to senses. Then the blood letting continued. If the fainting recurs several times, the blood letting should be postponed for one or two days later. The maximum quantity of blood that may be let out should not exceed one "prastha" or sixteen palams. After the operation place a piece of oily cloth on the spot and tie it. Susrutha states that cold should be applied for stopping bleeding and then astringent decoction or ash should be applied and in worst cases hot iron should be used.

VI

ULCERS AND THEIR TREATMENT

Ulcers are of two kinds, namely, Nija or those which arise on account of derangement of tridoshas in the body and Aganthu those which occur as a result of external causes. An indolent ulcer (Dustavrana) will have a small or a wide opening. It may be either hard or soft. The granulations might be sprouting above the surface of the body or it may be a deep ulcer. It is either too hot or too cold. It is either quite red in colour or white in colour. The discharge contains pus and is foul smelling. It might involve muscles, arteries, veins raised above the surface of the body cause severe pain; or there may be numbness or burning sensation. It is associated with oedema pruritis and is long standing. When it is due to vata, it is blue in colour, brown or ashy coloured. The discharge is like meer-juice. The pain is violent such as pricking, tearing, burning, beating etc. When it is due to Pitta, it is yellow or blue in colour, occurs rapidly, discharge is foul and smells like cow's urine and resembles that which occurs after cauterisation or the application of caustics. There is also fever and heat. When it is due to Kapha, ulcer is whitish in colour, itching, discharge is profuse, white and thick. The edges are thick, hard, the veins are prominent and there is a little pain. When it is due to rakta or blood, the ulcer is red like corals and the discharge contains pus and blood. The smell resembles the smell of stables.

Signs of shuddhavrana.

The surface resembles that of the dorsum of the tongue. It is soft bluish in colour, the centre is slightly raised above the surface and is evenly covered by pitika or granulation tissue, and there are no upadravas or complications. Ulcers in the skin, muscles, veins, arteries, joints, bones and in the cavities of the organs, intestines and marmas, are more and more difficult to treat in the descending order. Vranas on certain parts of the body like eyes, nose, abdomen, navel, internal canthus, ears, sides, armpit and breast are cured with difficulty. The vranas which have a foamy and pussy discharge, containing foreign bodies, not having opening in the dependent parts and leppers, diabetics, consumptive patients, situated near the anus, having connection with the bone-marrow, infected with poisons are cured with great difficulty. Vranas are said to be incurable if the patient is suffering from erysepelas, fever, diarrhoea, cough, thirst, insomnia, asthma, and in injuries of the skull and when the brain matter is visible. The signs of a healing ulcer described by Vagbhata* compares very favourably with the descriptions given in the latest books on Modern Surgery.

Treatment of Ulcers :

During the time of oedema or sopha, purgatives and emetics must be administered, when the further progress of sopha, is retarded. In the early stages of Vranasopha, when the abscess has not yet been formed, cold applications are indicated. When the abscess is hard to touch discoloured, painful, and if it is due to poison, treatment by leeches is indicated. When the bad blood is removed by this method, oedema, pain, and inflammation subside.

* The description of a healing ulcer as stated in the science and practice of surgery by Romans and Mitchiner is as follow: "Healing Ulcer: Where the inflammatory reaction of the tissues has overcome the infection. Here the discharge is slight, granulation are forming freely, the edges of the area are no longer inflamed and a single layer of epithelium may be seen spreading in over the granulations; this may be known by its bluish colour. Healing ulcer shows a transition from its centre outward of red and blue, and thence to white where the skin is normal around". This shows that the observations made by Vagbhata were so accurate and the descriptions given were so apt that no more additions could be made even after several centuries.

After the removal of the blood, cold applications like Shata-dhouthagh-rutha should be applied. Hot poultices should be applied when the abscess is hard and very painful. For preparing poultices wheat-flour, rice-flour and the flour of green-gram are usually used. If it is an early case, the swelling subside, abscess is formed and pus points at one particular spot when the abscess is quite superficial. When the pus is so pointing, it must be let out by incising the abscess. In very delicate persons, ksharas or caustics or drugs like guggulu godanta, swarnashiri, Atasi and pigeon's dung are applied for opening of an abscess, when it is ripe. When the abscess cavity is full of pus, the opening is small and directed upwards when it is in connection with Marma, substances which are free from fats and which exert a kind of squeezing action (*vidradhihara churna*) must be employed. In case of indolent ulcers douching (*kshalana*) Aalepa or application of medicines, ghee, oil, extracts, powders and varthi or gauze are used. In the case of healing ulcers, Tilakalka with honey is indicated for application. Then bandages or Bandhana are to be applied. Fourteen kinds of bandages are described according to their form.

1. *Kosha*: which resembles a hollow cylinder or sheeth is applied to the joints of the thumb and fingers. This is also used for amputation of thumbs.
2. *Dama*: A large bandage tied round a part for the relief of pain or cramps.
3. *Swastika*: This is applied round the joints, the space between the great and second toes, palmar surfaces of the hands, dislocation of the shoulder joints etc.
4. *Anavellita* or on-circling bandage: This is applied to the chest in the case of fractured limbs.
5. *Protoli*: A broad bandage for the neck and the penis.
6. *Mandala* or circular bandage: usually applied to the arms, sides, abdomen etc.
7. *Sthagika* or a supporter: This bandage is used to enclose a splint or to keep the medicaments on the part.
This may also be applied over the ends of the thumbs, fingers and penis.

8. *Yamaka* or double-bandage: A part of circular bandages applied to a couple of ulcers.
9. *Khatva* or fourtailed bandage: Used for temples cheeks and lower-jaw.
10. *China*: A bandage used for the inner canthus.
11. *Vivandhana* or a circular chest bandage: Used for the back abdomen and chest.
12. *Vitana*: Bandage for the head.
13. *Gophana*: A bandage for the chin, nose, lips, etc.
14. *Panchangi* or a five tailed bandage: Used in dislocation of the lower jaw.

There are three modes of tying bandages.

They are tight, medium and loose bandages.

The *vrana* which is due to external causes and which occurs suddenly is known as *Aganthuvrana* or *Sadyovrana*. This is due to trauma caused by men, cattle, birds, serpents, insects, by fall, crushing, by fire, caustics, poisons, weapons or sharp objects etc. If there is severe pain, ulcer must be bathed with warm "*Madhuyasti ghrita*" or bala taila. For decreasing the heat, cold, astringent, sweet and oily applications are indicated. Emetics, purgatives, fasting, dieting and blood-letting are also indicated in the treatment of these cases. Cut wounds on the head must be sewn and a firm bandage should be applied. If the ear is cut off, it must be sutured firmly and oil should be applied. If trachea is cut and if air is entering through it, the parts are to be united, sutured and bathed with goat's ghee, the patient should lie on his back and bandaged. He must take food in this position. If the arm or leg is cut off, treat it with hot oil and dress it with kosa dressing until the wound is cured.

VII

INJURIES OF THE BONES - FRACTURES AND DISLOCATIONS

Fractures and dislocations are due to a fall, a blow from a hard object, pressure, attack of wild beasts, etc. Dislocations are

divided into six varieties with the following symptoms: inability to stretch out the joint, to bend, to move or to turn. The fractures are divided into twelve varieties and the common signs are: severe inflammation, pain in certain positions, immobility, tenderness, prostration and noise on applying pressure.

The surgeon should know that the following are difficult to cure. Fractures of the skull, fractures and dislocations of the hip joint, crushed pelvis, fracture of ribs fractures of the back, recurrent fractures, abnormal bones, congenital deformities, crushed bones and fractures in the aged and the sick.

When the bone is shifted below, it must be pressed upwards, if it is shifted upwards it is to be pressed downwards. By judicious combination of pulling, pressing, raising and bandaging all the dislocated joints of the body can be set right. When once the joint is set right it must be covered over by strips of cloth smeared with ghee and on these, the inner bark of trees, pieces of bamboo are to be firmly tied. If the bandage is loose it does not give any firmness to the joint. But on the other hand if it is too tight it causes severe pain, heat, suppuration etc. In simple fractures, Bhavamisra states that cold water should be applied first, then mud is to be applied and afterwards splints and bandages must be applied. We have been directed in Yogaratnakara to treat fractures by lowering the raised ends and elevating the depressed ends and then to apply splints and bandages to keep them in position. The bandage should be renewed every three days in summer, every seven days in winter, and every five days in medium temperature. For bathing the part Nyagrodhadi kashaya should be used. If there is severe pain milk in which panchamoola is boiled, should be used. Luke warm oil also may be applied. In early age joint becomes firm after a month; in middle age after two months and in old age after three months. Special rules have been laid down for the dislocations and fractures of the sole of the foot, thigh-bone, hipbone, ribs, elbow joint, knee, ankle bone, arm, neck skull etc. In fractures of the bones five fingers should be fixed at different parts of the body, so that the patient lies quietly and cannot move by himself. If it is a simple fracture and is associat-

ed with swelling of the part cold poultices and washings are advised to prevent suppuration. Barks of Madhuka, Asvatha, Kakubha, Palasa, Audubara, bamboo and vata are used as splints. Dr. Jacobi of Dublin states that he has seen an excellent splint made from "fresh bark of a tree taken off while the sap is rising. It fits admirably, just like paste-board soaked in water". Crutches were used to help the crippled persons. The use of a sound limb as a splint for the fractured bone of the opposite side was known in those days. Rehabilitation exercises were also prescribed by Susruta. He has advised that after the union of fractures the hands should be made to hold balls of cowdung, mud and stones.

VII

ANAESTHESIA AND SURGICAL OPERATIONS

General anaesthetics are not mentioned in the medical text books of the Hindus. But there are evidences to show that they felt a necessity to produce insensibility to pain. Susruta and Charaka have advocated the use of wine to produce this effect. During 927 A. D. Pandit Vallala has stated in his Bhoja Prabandha that a cranial operation was performed on King Bhoja after rendering him insensible by a drug called Sammohini. He also mentions another drug called Sanjivini by which he regained his consciousness soon. The Hindus used the fumes of burning Indian Hemp to produce anaesthesia at a very early period. Jivaka, the personal physician of Buddha is said to have practised cranial surgery with great success. There are on record some cases of abdominal operations also. Sammohini may be compared with chloroform while there is no drug corresponding to Sanjivini in the modern pharmacopia.

The use of anaesthetics to alleviate pain of surgical operations was unknown before the middle of the nineteenth century. Before this period operations were done as a dire necessity. The victim was tied with ropes to prevent him from escaping this barbarous state of affairs formerly found to be inevitable is no longer neces-

sary at present after the discovery of anaesthesia for surgical operations was first demonstrated with the use of ether in 1846. Anaesthetics which are inhaled act fully as long as they are inhaled. When once their inhalation ceases they are rapidly exhaled and thus their action can be accurately controlled. Narcotic action of opium, Indian hemp are known from antiquity. But these drugs cannot be used satisfactorily as anaesthetics. They deaden pain but they depress the heart and respirations and may end fatally if the dose is large. Now-a-days several drugs are used to produce anaesthesia such as nitrous oxide, cyclopropane, ether, trichlor ethylene, chloroform, ethyl chloride etc. Spinal anaesthesia is also developed and used in certain selected cases. Local analgesia is induced by the following methods.

1. Surface analgesia.
2. Infiltration analgesia.
3. Regional analgesia.

Most of the highly complicated surgical operations are made possible on account of the development of a perfect technique of administering anaesthetics. But for this surgical operations would not have been performed with such gear ease and perfection.

VIII

CONCLUSION

We thus see that Hindu surgery which was developed so much by Susruta and his followers gradually declined due to several causes enumerated already. Indian medicine received the greatest support in the time of Buddha and the surgery was allowed to languish. There is great similarity between the origins of Greek and Indian medicine. According to some writers Hippocrates acquired his knowledge of medicine in India. The teaching of Pythagoras the founder of the Healing Art among the Greeks is essentially Indian. He is said to have acquired knowledge from the Egyptians, who had followed their art from Indians. From

this one may conclude that either Aryans copied their system of medicine from Greeks or the Greeks should have copied from Indians. The latter seems to be more probable because the Indians are more ancient nation and their medical books are older than any other books discovered so far on the surface of the earth. Professor Weber asserts in his History of Indian literature that "there is no ground whatever to suppose that Susruta borrowed his system of medicine from the Greeks; on the contrary, there is much to tell against such an idea."

Though it is true, that modern surgery has developed very much, we should not forget that Susruta had attained so much of perfection even in those days when the rest of the world had not known even what surgery was. East has to learn much from the West, but the west too may have something to acquire from the east. With the facilities available to us we must try to revive the ancient glory of the art and science of surgery, so that it may come up again and serve the suffering humanity as it did before.

—S. VENKATA NARAYANA RAO



CHAPTER IV

I

INSTRUMENTS

Susruta demanded that his cutting instruments should be made of best steel and that they should be sharp enough to split a hair. His instruments numbering over a Hundred included Triphines (Trikoorchika), Saws, Bone Enippers, Chisels, Hammers, Spencer Wells Forceps (Sanigraha), Dissecting Forceps (Anigraha), Hooks, Directors, Speculums, Syringes, Scalpels, Bisturies, Scissors, and various kinds of Needles and suturing materials required for major operations. He says that the instruments should have good handles and firm Joints.

Anti-septic precautions.

His antiseptic precautions before, during and after the operations should excite even the most up-to-date Surgeon. Laporotomy was performed for the removal of foreign bodies from the intestines. (Susruta Treatment-14.) Caesarian operations were performed. (Susruta Nidaan 8-15). Skilful grafting of skin and the grafting of a live flap of tissue in plastic surgery are described in detail. Dissection of the cadaver was systematically conducted. (Susruta-Sareera 5-50.) (Ashtaanga Samgraha-Sootra-35).

Anaestheisa was used in surgical operations Bhoja Prabhnda refers a cranial operation performed on King Bhija 927 A. D. after he had been rendered insensible by a fine powder called Sammohini (Anaesthetic).

“Moha choorena mohayitwa
Dirah kapaala maadaaya
Tat karotika pute
Sthitam saphaala kulam griheetwa
Kapaalam yadhavat aarachaya
Sanjeevanyaascha tam jeevayitwa.”

Saphaala Kulam is probably a tumour removed from the brain. From Mahaavaakya, we learn that Jeevaka, the personal physician of Buddha, practiced cranial surgery with success. It is stated that the Emperor Bimbissara sent Jeevaka the brain surgeon to the King of Egypt. The principle of Neuro-Surgery, namely, of cutting the nerve at its root for a quick cure of the disease was recognised.

“Oordhwa moolam adhah saakham
Rushayo purusham viduh
Moola prahaarinah tasmaat
Rogaam seeghratara jayet.”

Head injuries and tumours.

There are other references to the treatment of head injuries and removal of foreign bodies and tumours in the brain.

“After the Salya, either an arrow or some other foreign body which has penetrated into the head is removed and Vaata Varti, that is, a plug made of a bundle of hair of suitable size for filling up the vacant place if any in the bones of the skull should be inserted into the wound some of these hairs should be removed gradually as the bones get closer by heating. Otherwise he says that the brain matter (*Mastulunga*) and the Cerebro-Spinal Fluid may flow out causing dangerous complications”.

(*Susruta-Sadyovrana Chikitsa*)

If the head bones are fractured without leakage of Mastulunga (*Brain Matter*), the wound may be dressed by the application of a mixture of pure Ghee and Honey and duly bandaged. The patient is also advised to take plenty of Ghee in his diet and medicated

ghees as treatment. The prognosis of the several kinds of fractures of skull is given.

There is a legend that the Aswini Kumaaraas, the Twin Surgeons of the Devaas successfully rejoined the head of Yagna Purusha, which was chopped off by Rudra who got angry for not allowing him a share of the sacrificial offerings.

(*Susruta-Sutra-1*)

DR. A. LAKSHMIPATHI, B. A., M. B. & C. M.,

'Bishag Ratna'

II

NEURO SURGERY

Neurosurgery has been an old art like the other branches of Surgery. References to trepanation are found in Indian and Egyptian Surgery. Not much advance was made in Neurosurgery till about fifty years ago. Till then the origin of many diseases were obscure and the physiology of the nervous system was more obscure. But with the gaining of vast amount of knowledge of the functions of the nervous system, with the advancement of the art of Surgery on other parts of the body, with the progress in anaesthesia and asepsis, surgical attack on the nervous system became more popular. Along with other pioneers, we must pay homage to Harvey Cushing for the greatest amount of advance in Neurological Surgery.

With such advance today, relief and cure are possible in many cases that were considered incurable a few years ago. No longer are Neurological Surgery obscure corners, with no hope of therapy for the patient. Therapy is possible in many fields and it is the purpose of this paper to examine them.

We may classify the nervous system into three divisions for our purposes (a) Central (b) Peripheral, and (c) Autonomic Nervous systems.

(a) The Central Nervous System.

Trauma : Injuries to the spinal chord and the cranium are common with the advancement of industries and faster mode of traffic. Fractures and dislocations of the spine are orthopaedic problems. But later complications like gradual pressure due to haematoma, callus, displaced fragments, etc. may arise. These must be looked for and treated. Good results are obtained if the primary injury to the spinal cord is minimal.

Herniated Intervertebral Disc : The commonest cause of sciatica is the prolapse of the cartilaginous disc between the vertebrae in the lumbosacral region. Treatment of such prolapsed disc varies with the strenuousness of the occupation of the patient, his ability to afford a prolonged rest and the severity of his symptoms. In properly selected cases, removal of the prolapsed disc gives a cure. Minimum trauma to the muscles of the back during surgical exposure serves to avoid a weak back.

Head Injuries : This is a big and separate subject. With the proper understanding of the physiology and the pathology of the cranial contents, the treatment of head injuries has been placed on a far more rational basis. Many of us meet with cases of head injuries in everyday practice. The aim is to make the man as normal as possible. For this the first requisite is the proper diagnosis of any lesion on pressing on the cranial contents requiring relief. (The diagnosis of such lesions is not difficult). (So it is not discussed here). Proper surgical care of the injuries to the scalp, compound and depressed fractures of the skull and surgical treatment of intracranial haemorrhages and fluid collections after trauma form an important aspect of neurosurgery. After attending to these, the rehabilitation of the patient is very important. Repair of skull defect following either trauma or infection is possible with the restoration of the normal shape by using special resins or metal plates.

Infections : Infections of the central nervous system as commonest after ear and nasal infections. They may also follow injuries to the scalp and the skull, injuries and infections of the eye and infections in other regions of the body. Abscesses may

occur anywhere in the brain but are commoner in the cerebellum, the temporal and frontal lobes. Aspiration in earlier stages and removal enmasse in the later stages are essential for cure.

In Meningitis: In Meningitis, intrathecal administration of antibiotics is essential. In tubercular meningitis when the lumbar route is blocked because of adhesions, streptomycin must be administered by the ventricular route or into the basal cisterns. Neurosurgical approach to this problem has served to save many lives.

Tumours: A statement is being made often that brain tumours are uncommon in South India. I felt that this statement is not justified. The idea of tumours in the central nervous system is not present commonly in the minds of the profession. To this is added the supposed difficulty of diagnosing them. Unless every case of persisting headache has his eyes examined with the ophthalmoscope, unless a tumour is excluded in every case of fits failure of vision, paralysis and mental illness, we are not justified in making the above statement.

Here I must digress a little and stress the importance and use of the ophthalmoscope in general medical practice. Every medical man must possess this and must use it. Without a widespread use of this diagnostic aid, we cannot diagnose many curable lesions of the central nervous system in our country. If it be that brain tumours are common among us, is it not a great duty devolving on us to find out why, so that we may help other portions of humanity.

Non-malignant lesions of the brain like meningiomas, neurinomas, etc., are eminently curable though technically difficult, relief is possible in many cases of gliomas not involving vital parts of the brain. In tumors of the pituitary, the progress can be arrested and the vision saved.

(b) The Peripheral Nervous System :

Trauma to peripheral nerves, though often found in civilian life, is commoner in warfare. In injuries to the trunk, the doctor

must bear in mind the possibility of injury to important nerve trunks and exclude them. If such injury is diagnosed proper splinting of the limbs helps recovery. DIVIDED NERVES can be approximated. If the ends are too far apart, there are many devices to bring them together. In cases where such devices fail, autogenous nerve grafting has been done. The functional result of such suturing varies with the early treatment given to the affected muscles and joints, with the nerve and with the time interval between injury and nerve suture.

NERVE ANASTAMOSIS Can be performed in certain cases. The important being facio-hypo-glossal or fabio-accessory anastomosis in cases of FACIAL PARALYSIS due to affection of the facial nerve. If done within nine to twelve months of the onset of palsy, the results are good.

(c) The Autonomic Nerves System.

Sympathectomy in many forms has been popular of late. By sympathectomy, the vascular bed of the area, denuded of sympathetic fibres increases in volume. Hence it has been used in VASOSPASTIC DISEASES. In THROMBOANGITIS OBLITERANS which is fairly common among us, sympathectomy is useful when the spastic element is predominant, before severe elemental or organic changes have occluded the vessels. (This can be diagnosed by various tests). The procedure is also useful in other vascular disorders like Reynaud's Diseases, etc., which are commoner in colder countries.

Sympathectomy is also practised in some centres in cases of ANTERIOR POLIOMYELITIS with the hope of improving the circulation of the limb, thus promoting proper growth.

Hypertension.

Sympathectomy of thoracic and lumbar regions is commonly practised for relief of the symptoms of hypertension is not fully known. Sympathectomy is not a cure for hypertension. It gives relief from headache, insomnia and excitability and possibly prevents cerebral vascular rupture. Views vary with regard to definite indications for sympathectomy in hypertension. In younger age

groups, with no serious cenal or retinal damage, most neurosurgeons would perform sympathectomy. In cases with renal, cardiac, retinal or cerebral damage, some surgeons perform the operation and claim good results. I feel each must be judged on its merits taking into view the whole clinical picture as also the personality of the patient, his environment and occupation. Post operatively, even though the actual fall of blood pressure may not be remarkable, there is definite relief from the distressing signs.

The place of sympathectomy in MIGRAINE is still in the experimental state. Mr. G. F. Rowbotham of Newcastle on Tyne is conducting a research on this, but results are not yet definite. Parasympathectomy is also being tried.

In Pain—The place of sympathectomy in relief of anginal pain is well-known. It is also being tried in tabetic pain with success. For pain in the Pelvic viscera, sympathectomy has been mostly replaced by cordotomy (division of pain conducting tracts in spinal cord), except in a few cases.

Paediatrics.

Neurosurgery has a large part to play in Paediatrics. Many NEUROLOGICAL AILMENTS of childhood like convulsions, paralysis and retarded development of the child were attributed to anoxia during birth. A good percentage of these are found to be due to collections of cerebrospinal fluid or blood under the dura or under the skull. By aspirating or removing such collections, these children can be helped.

IN HYDROCEPHALUS, many methods are being now successfully employed to ensure a constant drainage of the cerebrospinal fluid and this keeps the size of the head small. Though the problem has not been completely satisfactorily solved, many useful methods are available.

IN CRANIOSYNOSTOSIS, premature fusion of the sutures of the skull leading to retarded development of the brain, nibbling the suture line allowing the brain to expand will result in better cerebral function, provided that the brain itself is not congenitally mal-developed.

TUMOURS of the central nervous system are commoner than supposed, in children. Tumours of the cerebellum, commoner in children, can be cured or relieved by surgery or deep X-Ray depending on the pathology. Frequent vomiting in children or failing vision or increasing size of the head or wasting, must lead to suspicion and a proper examination of the central system must be carried out.

Epilepsy.

Surgery of Epilepsy: This is highly advanced in Canada. Most of the epilepsies are gradually being found to have a demonstrable? eslon in the brain; many of which can satisfactorily be removed. This requires a high degree of co-ordination between the neurosurgeon, the radiologist and the electroencephalographist. In addition to curing the patients, the advancement of this branch of neurosurgery has led to radical changes in our conception of the functions of the brain. Here it must be emphasised that cases of fits occurring for the first time after the 25th year require very careful investigation to exclude tumours of the brain.

Pain.

Surgery of Pain: The relief that can be given to a patient suffering from pain due to an irremovable cause is immeasurable. One rearely sees a more grateful patient. Usually this is useful in advanced cases of malignancy, like cancer of the cervi, carcinoma of the face etc. Cordotomy or division of the pain conducting fibres of the spinal cord is a very useful operation for this purpose. There are many other procedures that are useful including pre-frontal leucotomy (division of the fibres connecting the frontal lobe to other parts of the brain). Pain from indefinite causes like trigeminal and glossopharyngeal neuralgias can be relieved by adequate neurectomies. The problem of migraine and tables have been discussed already.

Mental diseases.

Surgery in Mental Diseases: This is a vastly expanding field known as psychosurgery. The divisin of the various tracts in the

brain, chief of them being called prefrontal leucotomy, has been found to be useful for mental illnesses. They are found to be most useful in schizophrenia and depressive psychoses. Again, it must be emphasised that tumours of the frontal and temporal regions of the brain may cause mental illnesses.

Thus we find that in quite a large percentage of cases we can offer the afflicted patients cure and in many cases relief.

The Science of Yoga.

Our science cannot be static. It has to advance. Due to many reasons, the advance has not been said to be as rapid here as it has been in most other countries.

The cerebral cortex is no longer deemed the highest centre. The seat of consciousness, the seat of mind—these are not yet determined. The more recent ideas about the physiology of the nervous system seem more to fall in line with the Indian conception of Yoga. Āyurveda says: "*Hridayam Chetanaa Staanam.*" "The seat of action is in the Hridaya."

I feel that it is but proper that a country which gave the system of Yoga to the world, thousands of years ago, must again strive and take its place among the searches after truth—viz., the great scientists.

DR. B. RAMAMURTHI, M. S. F. R. C. S. (E).
Neuro-Surgeon, General Hospital, Madras.

III

WHAT A VILLAGE VAIDYA CAN DO FOR BRAIN DISEASE

Though intricate diagnostic and operative procedures on the nervous system are the province of the specialist, the early symptoms of neurological disease must be known to all medical men so

that early treatment may be initiated and serious consequences avoided. Though the village vaidya has not many diagnostic aids to help him or the necessary background, he can be taught to appreciate the early symptoms.

Diseases of the brain are not uncommon. It is affected in the same way and by the same diseases as other parts of the human body, but being a specialized organ with numerous functions, the symptoms may vary to a great extent, but there are certain broad principles that can easily be grasped for diagnosis.

The brain may be involved in injury, inflammation or in tumours. There are so many diseases which involve the blood vessel in the brain.

Head Ache.

Head Ache is the commonest symptom of the disease of the brain. It is also common in many other conditions. Hence it is necessary to examine every one carefully. If a headache is not relieved by ordinary means and is persistent, then it must be investigated. Increased pressure inside the head will cause persistent headache and if not relieved in time will lead to blindness. The presence of increased pressure inside the head can be diagnosed by an instrument called ophthalmoscope, and this can easily be used. So whenever the vaidya suspects that the patient has a disease in the brain or that there is increased pressure inside the head, he must get the eyes of the patient examined for evidence of "Papilioedema".

Dim Vision.

Difficulty in seeing may be due to changes in the eye and spectacles may correct the defect. But all cases of dim vision cannot be corrected by glasses. There are many cases where difficulty in seeing is due to pressure on the eye nerve inside the head. So if a patient's difficulty in seeing is persistent, a brain disease must be thought of.

Epilepsy.

Fits: Fits are of common occurrence. They are due to an irritation of the brain due to various causes. In children, fits are

more common, as the cerebral cortex is not yet fully developed. The irritation of the brain that causes the fits is localised to one spot of the brain, then the fits are convulsions will always tend to start in one particular part of the body. If the cause is deep or generalised then the fits will involve all portions of the body from the very beginning. Hence a vaidya should note in every case of fits, where the fits originate. If he is not present to see the attack of fits, he must ask the people who have seen it or enquire from the patient himself. The most important fact to be known in a case of fits is to know how and where the fits start.

If the fits start in one place and spread, then it is very essential that the patient is examined very thoroughly to find out the local trouble in the brain that causes the fits. If the fits are generalised, the patient may be tested and treated for fits. In treating such cases, the vaidya will of course treat the system by proper dieting, attention to bowel etc. He should also remember that today there are modern drugs which, when given for a long period, will lead to amelioration of the symptoms and cure in many cases of fits.

Paralysis.

All paralysis cases mean interference with the function of some portion of the nervous system. It is of course very necessary that the paralysed part must be treated with movement, massage, etc., and this every vaidya knows. At the same time it is also essential that the cause of the paralysis be diagnosed and treated. If the paralysis is of sudden onset it is usually due to either an injury or due to a sudden damage to a blood vessel with resulting lack of blood supply to a part of the brain. But if the *paralysis is slow and progressive* it is likely to be due to a slow compression of the nervous system. In such cases, cure can be effected if the cause is diagnosed. For example, a slowly increasing paralysis of both the lower limbs is probably due to a tumour pressing on the spinal cord. The tumour can be removed and the patient will improve. Similarly a slowly increasing hemiplegia (Paarswa Vaayu) is probably due to a brain compression of tumour which can be relieved.

So any slowly increasing paralysis of functions or sensation in any patient must be referred for a proper neurological examination.

Vomiting.

It is important to realise that any pressure on the brain may lead to vomiting. So when there is a case in which vomiting is not relieved by attention to the alimentary system or diet, the vaidya must remember that the cause may be in the nervous system. This is specially so in children. If a child is persistently vomiting, the head and the nervous system must be examined to see if there is increased pressure.

Mental Changes.

All mental changes are not due to insanity. Tumours affecting certain parts of the brain may cause mental changes. By relieving the pressure on the brain, the patient may completely be cured of the symptoms. If a patient with mental changes is not relieved by treatment in a short time, it is essential to do a thorough examination of the system.

By incorporating these important facts mentioned above, the Village Vaidya will be in a much better position to deal effectively with the nervous diseases.

DR. B. RAMAMURTHI, M. S. F. R. C. S. (E).
Neuro-Surgeon, General Hospital, Madras.



Printed in India
By
Sri R. K. V. Ramana Sastri, LL. B.
At
Devanagari Power Press, Guntur - 2.

CHAPTER I

THE IMPORTANCE OF DIAGNOSIS

Very great importance is attached in Aayurveda to careful examination of the patient (Rogi Pareksha) and of the disease (Roga Pareksha) with a view to arrive at a correct diagnosis before any treatment is attempted.

*Rogamaadou Pareeksheta
Thattho Ananthara Moushadham
Tatah Karma Bhishak Paschat
Gnaanapuram Samaacharet.*

Charaka Book 1—Chap. 20-V. 22.

It is for this reason that the fame of Aayurveda spread far and wide and that Aayurvedic treatment still holds the field in spite of so many advances in modern science.

CONCENTRATION OF MIND ESSENTIAL

Charaka emphatically says:-

*"Gnaana deepa Pradeepena
Yonavisati Tatwavid (Yogavid)
Aaturaasya Antaraatmaanam
Na Sa Rogaanscihikisyati.*

Charaka Vimaana Ch. 4.—V. 14.

A physician who cannot enter into the innermost Soul of the patient with the aid of the bright lamp of his own knowledge (of

Yoga, according to a different reading) cannot successfully treat any diseases. The physician may use any number of instruments and may take the aid of all laboratory tests, but unless he can concentrate his own attention upon the clinical study of the case, he is likely to be misled in his judgment. If praise was bestowed upon Aayurvedic treatment even by foreigners this is due its own peculiar methods of diagnosis and treatment. The secret of Aayurveda is that the physician should be the master of his senses and of the instruments used by him to help these senses but not be a slave to them. This is what is understood by the word Yoga or attention. He should have absolute respect for truth (Thatwa).

DEFINITION OF ROGA VIJNAANAM—DIAGNOSIS

Roga Vijnaanam is the science through which the definite knowledge of disease is obtained. The word Roga is made up of Rujroot with Ghan, Pratyaya, -Rujatiti, Rogah, Thasya Vijnaanam Roga Vijnaanam. Disease is that which causes pain. The word Roga Vijnaanam literally means a special knowledge of a disease. This is more or less what is broadly intended by diagnosis, including prognosis. in English.

CONCEPTION OF HEALTH AND DISEASE

The conception of the two terms, 'health' and 'disease' as stated in Aayurvedic treatises, is clear, concise and comprehensive. Health is defined to be that state of the body in which the three Doshas, Vaata, Pitta and Kapha are in equipoise, i. e., neither decreased nor increased nor perverted, maintaining and sustaining the Saptadhaatus and Malas in their normal quantity and quality.

*Sarveshaameva Rogaanaam
Nidaanam Kupitaa Malah*

(Madhava Nidana - Ch. I)

The cause of all diseases is derangement of Malas. Here it refers to derangement of Vaata, Pitta and Kapha, and which should be regarded as excretions when they are deranged.

Disease is brought about whenever the three Doshas are out of equilibrium and the normality of the Dhaatus and Malaas is disturbed. The deranged Doshas are the sources of all diseases and they lie at the root of and run through the course of all known forms of bodily distemper and are the exclusive cause of all the diseases. The three Doshas which normally constitute the nutrient Dhaatus which nourish the Sapta Dhaatus injure them in disease. Disease is thus caused by the interaction between deranged Tri-Doshas and other Dhaatus (Doshadhatu Sammoorchanam.)

*Tathhaavidha-dosha-dushya-Sammurchanaavishesho
Jwaradirupo Vyadhih, Tatkaaryaascha Aruchyadayah*

Madhavanidana Chapter 1. Verse 7. Vijayarakshitaa's Commentary. A particular kind of interaction between a deranged Dosha or Doshas and one or more of the Sapta Dhaatus constitutes what is known as a disease such as fever. Symptoms such as loss of appetite are the results of such interaction between the deranged Doshas and Dhaatus.

PANCHALAKSHANA NIDAANA

The methods of investigation of disease in Aayurveda are usually described under the following five heads. *

1. Nidaanam—The causes, which probably started the disease. They very often give a clue to diagnosis.
2. Poorva Roopam-Prodromata, pre-disposing symptoms and signs.
3. Rupa—Means a symptom or symptoms by which a disease exhibits itself. The group of symptoms or symptom-complex, which constitute the disease definitely is called Rupa-Samudaya. The Rupa Samudaya may be taken as a Syndrome.
4. Upasaya—Upasaya is a form of diagnosis in which a disease is ascertained by the experimental use of particular conduct, diet or drugs.
5. Sampraapti—The observation of the course of the disease.

* This is called Panchalakshana Nidaana.

NIDAANA

First comes the investigation of 'Nidaana' or the root cause of diseases; that is to say, of the particular causative indiscretion, such as, bad food, bad water, indulgences, excesses and the like. This gives us clues to diagnosis and prognosis. But, as one Nidaana may possibly be at the root of more than one disease, Nidaana alone cannot help us to diagnose diseases.

PURVARUPA

Next we proceed to investigate Purvarupa, or the prodromata. This investigation helps the physician to correlate particular Doshic derangement with a particular group of prodromata and also gives him some clue to prognosis.

RUPA

Next comes the investigation of Rupa or symptomatology by means of which the physician is enabled to judge the special feature of the developed stage of disease of Doshas, Dushya etc., which indicate whether we have to deal with morbidity of one Dosha, two Doshas (Dwanda), or all the three (Sannipatha), whether it is an affection of Rasa, Rakta, Mamsa, Asthi, or any other Dhautu or Dushya, and so on. The study of signs and symptoms was apparently pursued by Aayurvedists with remarkable diligence and skill. The richness of material available in this field is so vast that it is a thousand pities we do not know more about it. When one goes through some of the ancient medical classics, which are happily still extant, one cannot but feel that they are obviously the works of master-minds gifted with marvellous powers of observation and expression.

UPASAYA

Next in order comes what is termed Upasaya, which is really a form of diagnosis by applied therapeutics, a measure not unknown

to Western medicine. Let us say, the question is whether a particular ailment is due to the derangement of Vaata. We are in doubt. We then prescribe a diet, exercise or any other remedial measure known to cure this suspected derangement, which is then either ameliorated or aggravated. If it is ameliorated, then the hypothetized proposition is confirmed. If not, it is rejected.

SAMPRAPTHI

Finally, we have Samprapthi, a term which is generally translated as pathology; but it is really much more, because its investigation is conducted with a special eye to prognosis. An illustration may perhaps render the meaning clear. Let us say, we have a group of signs and symptoms from which the trained doctors would infer typhoid fever; to the Aayurvedist, its Samprapthi would have reference to such consideration as the following:—

Which of the eight kinds of fevers does this come under?

What is the measure of the deranged Doshas?

Does it belong to this, that or the other type?

Is the disease primary or secondary?

Is it benign or malignant, curable or incurable or curable with difficulty; total by curable or partially curable?

Is the time of its occurrence favourable, for example, the beginning or ending of an epidemic or a periodical or seasonal recurrence, and the like?

The above five are called Nidaana Panchaka, (Panchalakshana Nidaanam). These are five methods of knowing a disease. Their general purpose is to know a disease definitely and its prognosis.

Susruta, however, says that there are six methods by which disease is known, namely, the five senses and interrogation.

Shadvidhohi Roganam Vijnanopayaah.

And according to Charaka, there are only three methods of knowing the disease.

Thrividham khalu Rogavijnanam.

The three methods are Pratyaksha (direct observation), Anumaana (reasoning and inference) and Sabda (accepting the authoritative statements of approved authorities)

DIFFERENT METHODS OF INVESTIGATION

In Aayurveda there are different methods of investigation for knowing a disease. The principal methods are (1) investigation by Panchalakshana Nidaana, (2) Investigation by the five senses and by interrogation, (3) Investigation by the three well-known methods of Pratyaksha (direct observation), Anumaana (reasoning) and Sabda (authority), (4) Astasthaanapareeksha, i. e., the investigation of the condition of eight parts of the body viz. i. Naadi (pulse), ii. Muthram (urine), iii. Malam (stool), iv. Jihwa (tongue) v. Netram (eyes), vi. Sparsam (skin), vii. Sabdam (voice) and viii. Rupam (appearance). All these investigations are intended to study the normal or abnormal conditions of Dehadhaatus viz. Doshas, Dhaatus, and Malas.

CHAPTER II

NIDANA-CAUSE OF DISEASE

The popular meaning of the term Nidana is diagnosis which also includes prognosis. Generally speaking the word Nidana is applied to the collective Aayurvedic name for Etiology, Pathology, Prodromata and Symptomatology etc., although in a restricted sense the word Nidana refers specially to the causes that bring about disease. In this chapter we deal with Nidana as aetiology or cause of disease.

DERANGEMENT OF DOSHAS

The causation of disease (Nidana) is considered in many ways. Firstly we may say that there is only one cause for all diseases viz., vitiation of three *Doshas*. *Sarveshameva Roganam Nidanam Kupitah Malah*. And the cause again, of this derangement is *Ahita Sevanam* i.e., use of unsuitable objects. But in order to make a closer study of the causes of disease we have to take into consideration all the possible ways in which the Doshas may be deranged and all the possible ways in which unsuitable objects may be indulged in by man by the improper use of his mind and his senses.

IMMEDIATE, REMOTE, WEAK AND PATENT CAUSES.

Nidana, again, is four-fold viz, Sannikrista Nidana, Viprakrista Nidana, Vyabhicharika Nidana, and Pradhanika Nidana.

(1) Sannikrista Nidana is the immediate or exciting cause as for instance, improper food or food taken at improper time or in improper season. This operates as the immediate cause of the derangement of Doshas. *Naktamdina-rtu-bhuktamsah doshaprakopasya hetavah, na te chayadikam apekshante*. Here there is no consideration of Chaya (increase) or Prasama (subsidence) of the Dosha. As soon as the improper food is taken, this operates as the immediate cause of the disease.

(2) Viprakrista Nidanam : It is the remote or distant cause; for instance, if the Kapha accumulated in Hemantharitu becomes a cause of a Kapha disease in Vasanta Ritu, then it is an example of Viprakrista Nidana. Here a certain amount of time elapses between the cause and effect. *Hemante nichitah Sleshma Vasanthe Kapharogakrit* (Madhavanidanam)

(3) Vyabhicharika is the subservient or weak cause, i.e., a weak cause unable to give rise to a disease by itself (due to strong immunity). For example, a germ may enter into the body but it may not produce a disease; such a cause is called Vyabhichari nidana. *Yohi durbalatwat Vyadhikaranasamardhah*.

(4) Pradhanika is the predominant or patent cause. The example given is that of a poison administered to a person. Here the treatment for elimination of Visha is more important than the treatment for the deranged Doshas (which are caused by Visha). Therefore Visha is considered Pradhanika.

INCOMPATIBLE CORRELATION, FAULTY UNDERSTANDING AND SEASONAL FACTORS

The above-named Nidanas are again classified into following three kinds.

(1) Asatmyendriyardha Samyoga, (2) Pranjnaparadha and (3) Parinama.

(1) Asatmyendriyardha Samyoga i. e., the deficient, excessive and perverted use and incidence of senses i.e., the five organs of sense and five organs of action. Or in other words it is the incompatible correlation of the senses with their objects. Nothing in this world can cause health or disease without having some sort of relationship with man. Man has got this relationship with the outside world only thro-

ugh his indriyas or senses. These indriyas are five in number; therefore there are five-fold modes in which the outside world can come into relationship with the human body. This relationship may be (1) Atiyoga or excessive use of a particular sense. (2) Heenayoga or deficient use, (3) Midhyayoga or perverted use. Taking for instance the sense of taste—one may eat or drink too much or too little or unsuitable articles. In this way all external senses—objects of any kind may be included in the Atiyoga, Heenayoga and Midhyayoga of one or more of the five sense-organs. Nothing in the external world which comes into relationship with man can escape this classification.

(2) Prajnaparadha i.e., the perverted use of the mind or in other words faults of understanding. The exhibition of these faults may be affected in three ways viz., Sareeraka, Vachika and Manasika i.e., by the body, the speech, and the mind. These become causes of diseases when they are due to faulty understanding. They cause abnormality of Dhatu balance.

(3) Parinama is the deficient or excessive or perverted incidence of the season, i.e., of cold, heat and rain. There is a technical expression having reference to seasonal, climatic and other variations governed by the time-factor. If these become abnormal by excess, defect or perversion, these may bring about disease by upsetting the the normal equilibrium of the doshas. Thus too severe or too mild seasons, the absence of rain during rainy season or occurrence of it during non-rainy periods, the prevalence of winter conditions during summer or vice versa or any such abnormality or even mere non-adjustment to individual needs even though the seasons, climate etc., are normal, may all operate as causes of disease.

CAUSES OF VITIATION OF DOSHAS, DIRECT CAUSE OF DISEASE AND OF BOTH

Nidanam is again divided into three kinds 1. Dosha Nidanam 2. Vyadhi Nidanam and 3. Ubhaya Nidanam.

1. Dosha Nidanam:—By this is meant the cause of the aggravation or accumulation, derangement and subsiding of doshas e.g. *Madhura Rasah* (sweet taste) etc., created under the influence of Ritus.

*Chayaprakopaprasamanimittah
Yatharthutpannah Madhuradayah.*

2. Vyadhi Nidanam :—Eating of clay or earth is an instance of *Vyadhi Karana*, as it produces Pandu Roga (anaemia). Though it is a cause for the vitiation of the doshas the consideration is that the doshas deranged by it produce Pandu Roga only and so, though it cannot give rise to the disease by itself without the vitiation of doshas, such cause is said to be a Vyadhi nidanam.

3. Ubhaya Karana :—This is simultaneous cause for both the vitiation of doshas and Vyadhi. As for example, travelling long distances at a stretch on an elephant, or a horse, or a camel, is not only a cause for the vitiation of vaata (as in Vaatarakta) but also a cause for the quick motion of blood into the blood vessels towards the feet on the other hand causing the 'Vatarakta'.

'Hastyasvostrair gachchataschasnatascha'

PRE-EXISTING AND EXCITING CAUSES

Nidaana is divided again into Utpadaka and Vyanjaka.

1. The Utpadaka Nidaana means pre-existing cause; for instance, the Madhura rasa created in Hemanta Ritu is the pre-existing cause of kapha derangement. Hemantajo madhura Rasah Kaphasya Utpadaka Hetuh.

2. Vyanjaka Nidaana means the exciting cause. For example the heat of the sun in Vasanta Ritu becomes the Vyanjaka or exciting cause of kapha. Tasyaiva Kaphasya Vyanjako Vasante Sooryasantapah. (Madhavanidanam).

EXTERNAL AND INTERNAL CAUSES

Nidaanaas are again divided into Baahya and Abhyantara Bhedaas. Baahyaabhyantara Bhedaachcha Dwidhaa. Baahya nidaana relates to Ahaara (food), Achaara (conduct), Kaalam (time) and other causes. Baahya nidaanas literally mean extrinsic causes. Physical exertion, starvation, fall (from a tree etc), fractures, deficiency, wakefulness, obstruction of vegas, great grief, cold, great fear,

dry substances, rainy season, completion of digestion of food and the afternoon—these are the baahya causes for derangement of vaata. Pungent, sour, hot food that produce burning sensation, exciting foods (Teekshna), salt, anger, fasting, sun, sexual intercourse, Tila seeds (sesamum). Ataasee, curds, spirits like Sura, Sukta, Aaranala, the stage of digestion (i.e., during digestion) Saaradritu, summer, midday midnight these are Baahya causes for the derangement of Pitha. Heavy, sweet, and oily foods, milk, puddings prepared with sugarcane juice, liquids, curds, sleep, eatables prepared with much ghee, winter, morning and the time immediately after food—these are Baahya causes for derangement of kapha.

Vyaayaamaadapatarpanaat Prapatanaat bhangaat kshayaat Jaagaraat, Vegaanaamcha vidhaaranaat atisuchah Saithyaat Atitraa-satah, Rukshakshobha kashaaya-tikta-katukaibrebbih Prakopam vrajet Vaayur Varidharaagame Parinathe chaanne Apraahnepicha Katvamloshna - vidaahiteekshna-lavana - krodhopavaasaatapa stree-samparka - tilaatasee - dadhi - suraa sukthaaranaaladibhih, bhukte jeeryati bhojanecha saradi greeshme sathi praaninam, madhyaahne cha tatha artharaatra samaye pitham prokopam vrajeth."

'Guru madhurarasaatisnigha-dugdhekshubhakshya-drava dadhi-dinanidraapupa Sarpishprapuraih, Tuhinapathanakaale Sleshmanah Samprakopah, Prabhavati divasaadou bhuktamatre vasanthe."

INTERNAL CAUSES—AABHYANTARA NIDANAS

The Aabhyantara nidaanas (internal causes) are the three doshas viz. Vaata, Pitha and Kapha, which by their interaction with the seven dushyas viz. Rasa, Raktha, Maamsa, Medas, Asthi, Majjaa and Sukra, cause disease.

KINDS OF DOSHA DERANGEMENT

The vitiated doshas (one kind of Aabhyantara nidana) are subdivided in many ways—They are as follows.

SEASONAL AND UNSEASONAL DOSHAS

Vitiated Doshas are subdivided as Praakrita (seasonal) and Vaikrita (unseasonal). For instance the vitiation of Vaata naturally takes place to Varsha ritu, i.e., rainy season. The vitiated Vaata

Dosha occurring in a patient is termed as Praakrita or seasonal Dosha with reference to that season. Pitha and Kapha doshas, occurring in the same patient are called Vaikrita Doshas i. e., unseasonal Doshas with reference to rainy season. Similarly vitiated Pitha Dosha is the seasonal dosha with reference to Saradritu and vitiated Kapha Dosha in a patient is the seasonal dosha with reference to Vasantha ritu, i. e., the spring. This knowledge is here useful for the purpose of prognosis. As Charaka says that Praakrita fevers i. e., Kapha and Pitha fevers occurring in Vasantha and Saratkaala respectively are easily curable. Praakritah Sukha Saadhyastu Vasantha Saradudbhavah. Vaata fevers, however, are difficult to cure even when they are Prakrita. Prayena Anilajao Dukkha-Charaka Chi. A3-41-47.

PRINCIPAL AND SUBORDINATE DOSHAS

The vitiated Dosha is again sub-divided into (1) Anubandhya, i. e., the principal Dosha and (2) Anubandha, i. e., the subordinate Dosha.

This distinction whether a particular Dosha is principal or subordinate, is to be made, as the treatment is to be usually directed to the principal Dosha, but there are exceptions. For instance, Upadrava or complication is an Anubandha Dosha. If the principal or main Dosha is tackled, the upadrava also goes away of its own accord. But at times this upadrava is to be treated first.

TEMPERAMENTAL AND ANTI-TEMPERAMENTAL DOSHAS

The vitiated doshas are to be classified from the viewpoint of Prakriti i. e., temperamental and Vikriti i. e., anti-temperamental. Prakriti or temperament is the inherited constitution of a person. These are mainly three,—Vata Prakriti, Pitha Prakriti and Kapha Prakriti. A vitiated Vata Dosha occurring in a person of Vata Prakriti is difficult to cure and similarly other Doshas.

DOSHAS PULLED FROM THEIR OWN PLACES

If a Dosha, in a normal condition is displaced by another powerful Dosha from its normal seat, the former even though it is

in its normal condition, is made to cause disease. Here, the disease is caused from Aasayaapakarsha of the normal Dosha pulled out of its seat by a powerful Dosha. For instance, Vayu displacing normal Pitha causes burning sensation, weakness etc. Here the Pitha is not vitiated but it is in normal condition; and the burning sensation is caused by Pitha powerfully pulled by Vata. The significance is that, in this instance, the treatment is to be directed to Vata and not to Pitha. If Sodhana treatment for Pitha like the administration of purgative is given in this instance, the physician is causing injury to the patient because the normal Pitha is made to decrease unnecessarily and with detriment. Here, the proper treatment is to restore the Vata to its place. Hence, the necessity of this mode of study.

VARIETIES OF MOVEMENTS OF DOSHAS.

The movements of Doshas in the body are sub-divided further. Firstly as (1) Kshaya, i. e., decrease (2) Sthaanam, i. e., keeping to its normal measure and seat, and (3) Vriddi i. e., increase. The symptoms of such increase and decrease and normality of Doshas are given elsewhere.

The significance is that a decreased Dosha is to be increased and that an increased dosha is to be decreased while a normal dosha is to be carefully kept in its place.

Secondly, the movements of doshas are sub-divided as (1) Urdhwagati, i. e., movement upwards, (2) Adhogati, i. e., movement downwards and (3) Tiryaggati, i. e., movement transversely. This knowledge is also for purposes of treatment, for example, Rakta-pitha (haemorrhage) which is Urdhwaga or moving upwards, has to be treated with a purgative, i. e., a medicine which moves downwards and vice versa. A physician who does not know this sort of movements may administer foolishly a purgative in Adhogata Rakta Pitta (downward haemorrhage) thinking that a purgative is the best medicine for Pitta. To prevent such a fatal mistake, the knowledge of the movement of Doshas is essential.

MOVEMENTS INTO KOSHTA, SAAKHAAS AND MARMAASTHI-SANDHEES

The movements of Doshas which take place into the Koshta, Saakhaas and Marmaasthi Sandhees have to be known. Trividhaa-

cha aparāa Koshta-Saakha-marmasthi-sandhishu (Vijayarakshita's commentary). Doshas move in the Koshta and cause internal diseases, (Āantara Vyadhees) as *Jwara, atisara, chardi, alasaka, vishuchika, kasa, swasa, hicca, anaha, udara, pleeha, visarpa, svayadhu, gulma, arsas, vidradhi* etc. This path is called *Aabhyantara roga marga*. *Koshta* is the alimentary tract which lies, from the mouth to the anus in the interior of the body.

Doshas move also into the second path known as *Bahyaroga Marga* (External Path of Diseases.) This path comprises of *Sakhas* which is the term given to skin and the six dhatus viz., *Rakta, Mamsa Medas, Asthi, Majja, and Sukra*. *Doshas* moving into *Sakhas*, cause *Ganda, Pidaka, Alajee, Apachee, Charmakeela, Adhimamsa, Masaka Kusta, Vyanga, Swayadhu, Gulma, Arsas, Vidradh* etc.

Doshas move also into the *Maadhyama Roga Marga* (intermediate path) which constitutes *Marmas* and *Asthi Sandhees* (joints). The principal *marmas* are *Hridaya, Vasti and Siras*. *Pakshavadha, Apataanake, Ardita, Sosha, Raajayaksma Sandhisulaa, Gudabhramsa, Siroroga, Vastiroga, Hridaya Roga* etc., are caused when *doshas* move into this path.

This knowledge helps in applying different methods of treatment appropriate to the *Doshas* in different paths. For instance when vitiated *Vata*, moves into *Aamaasaya*, (a part of *Koshta* and a seat of *kapha*) *Rukshapurva sweda* is to be done. Similarly when vitiated *Kapha* moves into *pakvaasaya* (a seat of *Vata*) *Snehapurva Sweda* is to be done. *Amaasayagate Vate Kaphe Pakvaasayaasrite-Ruksha- Purvo hitah Swedaah, Snehapurvah, Tadhavacha*. In the instance, *Snigdha Sweda* should not be done for *Vata* and *Ruksha Sweda* is not appropriate for *Kapha*. This knowledge arises from *Gati* or movement of *Doshas*. (In other instances only *Snigha Sweda* is appropriate for vitiated *Vaata*). To quote another instance, *Agnikarma* (cauterisation) should not be done to *Vranas* when they are situated in the *Marmas*—*Naagni Karmopadestavyam Snaayumarma Vraneshu cha*" *Madhavanidanam*.

IMMATURE AND MATURE DOSHAS

The vitiated *doshas* should be further known whether they are immature, i. e., affected by *Aamadosha* or not. Such immature and mature *Doshas* are called *Saama doshas* and *Niraama doshas*

respectively. The significance is that treatment for immature *doshas* is *paachana*, *langhana* etc. while for the mature *doshas* *Samana* treatment is to be done for the particular *dosha*. *Asya Prayojanam saame paachanam Niraame Samanam iti*.

NIJA AND AAGANTUKA CAUSES

These *Nidanas* or causes may be sub-divided again into *Nija* and *Agantuka* kinds.

There are two kinds of disease viz., *Nija* and *Agantuka*. Both *Nija* and *Agantu* diseases may relate to *Manas* (mind) and *Sareera* (body). *Susruta* divides diseases into three classes (1) *Aadhyatmika* diseases are those who have their origin inside the body; they may be mental or bodily diseases. (2) *Aadhibhowtica* diseases caused by external agencies such as trauma, injury by wild animals etc. (3) *Aadhidaivika disease*—another whose cause is beyond human control i.e., floods, earth-quakes etc.

Susruta uses the word *Aadhyatmika* to all diseases which have their origin inside one's body including the mind, although the term *Aadhyatmika* is generally used to mean only to those things which relate to the soul.

In *Agantu* causes are also included *Abhichara* (employment of spells for evil purposes), *Abhisapa* (pronouncing curses) and *Abhishanga* (attack by invisible *Bhutas*, *Grahas* etc).

The word *Bhuta* is seen to have been used to mean also poisonous microbes (vide *Charaka. Sareera Chap. 1. verse 119, commentary by Chakrapanidatta*)—*Bhutih Savishakrimi-Pisachadayah*. Therefore microbic diseases according to modern classification may be included under *Agantu* diseases. *Susruta* considers that some diseases like *Kustha* (leprosy) are caused by invisible microbes which are born in the blood vessels. Therefore these microbic diseases may be classed under *Nija* diseases. Other microbic diseases where vitiation of *doshas* is subsequent to the invasion of microbes may be called *Agantu* diseases.

Metabolic diseases, however, are always classed under *Nija* diseases.

CHAPTER III

POORVAROOPA

DEFINITION

Poorvaroopas are the premonitory indications which occur during the incubation period, i. e., before the disease fully manifests itself. These Poorvaroopas may give a clue to the disease but at this stage one cannot be certain whether any disease will manifest itself or whether the disease may subside. These indications may be few and may not be very pronounced but an intelligent patient or a physician may be able to guess the advent of the disease very often. For example, there may be symptoms of impending rain viz. a black cloud, a cool breeze and lightning. These three may be taken as Poorvaroopas or premonitory indications of impending rain. But at this stage one cannot be certain that this rain is sure to come.

IMPORTANCE OF STUDYING POORVAROOPA

By observing certain symptoms, an intelligent physician may predict the onset of a particular disease. The real onset of disease, however, is determined by the group of symptoms or the symptom-complex which makes up the disease. The actual fall of rain drops in the example given above, is comparable to the onset of disease. Whereas the actual symptoms of fever are burning sensation of the body, pains in the body etc., the Poorvaroopas or premonitory

CHAPTER III

IMPORTANCE OF STUDYING POORVAROOPA

symptoms of fever are tiredness (Srama), restlessness (Arati) change of complexion and taste (Vaivarnya, Vairasya). Though the prodromal symptoms should not be considered as actual symptoms of the disease, a study of these symptoms is of great value in detecting the onset of a particular disease well before hand even in preventing it by taking the necessary steps. This is a very delicate subject and only an experienced physician can understand the real value of careful clinical observations that would help in prevention of disease. For instance, certain kinds of dreams and hallucinations (seeing things where nothing exists), seeing bits of hair, straw and other unpleasant things while taking food causing disgust for food are mentioned as indications of a future advent of consumption. The scientific principles involved in these dreams and hallucinations may not be known to us at present but mental aberrations and disgust for food may be responsible for wasting and may act also as predisposing causes for consumption. In determining the differential diagnosis between Rakta Pitha (a disease of blood) and Prameha (a disease of the urinary system), it is mentioned that if the urine of the patient is yellow and contains blood, it is necessary to know the prodromal symptoms of Prameha or of Rakta Pitta before we can determine whether this is Rakta Pitha or Prameha. The prodromal symptoms of Prameha are said to be accumulation of Mala (debris) on the teeth etc., sweetness in the mouth, stickiness on the body among others; whereas the prodromal symptoms of Raktha Pitha are said to be desire for cold, inky taste of the mouth and sensation of smoky feeling in the throat and others. Here the knowledge of prodromal symptoms helps us to determine disease before hand. It is in this manner that the importance of the study of earliest symptoms of any abnormal feeling in the body or in the mind of the patient, is rightly emphasised in Aayurveda. Whereas we have to treat a case of Prameha with exercise and starvation, the treatment of Rakta Pitha is to give rest to the patient and feed him up. This makes all the difference whether a physician helps in the cure or aggravates the disease by a wrong diagnosis in the earliest stage of the disease.

TWO KIND OF POORVAROOPAS

Poorvaroopas are of two kinds viz. Saamaanya (general) and Visishta (special). Saamaanya Poorvaroopas are those which indicate the disease to some extent without giving any indication of the Dosha derangement. Visishtapoorvaroopas are those which give an idea of the Doshas also in addition to some idea of the disease. It is from the Roopa that we can have a clear and definite idea of the disease and of the Doshas, e. g. excessive yawning occurring before fever may be taken as Visishta Poorvaroopas of Vaata type of fever; burning sensation in the eyes as a Visishta Poorvaroopas of Pitha type of fever and disgust for food as Visishta Poorvaroopas of Kapha type of fever.

Another point of distinction pointed out between Saamaanya and Visishta Poorvaroopas is that the Saamaanya Poorvaroopas generally disappear before the onset of the disease whereas Visishta Poorvaroopas are likely to continue after the disease commences. It is further stated that if a large number of prodromal symptoms mentioned in the case of a disease, persist also after the disease manifests itself, the prognosis is considered to be grave. Purvarupaani Sarvaani jwaroktaani atimaatrayaa Yam Visamthi visathyenam mrityur jwarapurassarah, Anyasyaapi cha rogasya purvarupaani yam naram, Visamthi etena kalpena tasyaapi Maranam dhruvam. Charaka, Indriya Sthaana—Chap. 5.

“When all the Poorvaroopas, mentioned in the texts, of fever appear before the onset of fever and when these, in a large measure, persist after the fever establishes itself, such fever is very likely to cause death.

“Even in other diseases if all the Poorvaroopas exist and they also persist during the course of the disease in a large measure, such a patient also is likely to die.

In Aayurveda the terms Poorvaroopas and Roopa include both signs and symptoms. “The symptoms are of two kinds—‘subjective symptoms’ which are recognisable only by the patient and present no external indication, such as pain, itching or a feeling of chilliness; and ‘objective symptoms’ which can be detected by the observer e. g., abdominal enlargement or dullness on percussion.

These words ‘subjective and ‘objective’ are borrowed from philosophy. Subjective reality is reality which exists in the mind only, whereas objective reality is that which can be demonstrated by means of tangible, visible, or outwards signs. The word “symptom” is used in two senses; sometimes it is used in a general sense to indicate all the subjective and objective evidence of a disease; but more usually it is employed in a narrower sense, as synonymous with subjective symptoms. Objective symptoms are usually spoken of as signs; and those objective symptoms which are made out by physical examination are known as physical signs.” (Savill, “A System of Clinical Medicine” page 1.)



CHAPTER IV

ROOPA

Roopa is defined as follows:—Tadeva vyaktataam yaatham Rupamiti abhidheeyate, Samsthaanam Vyanjanam Lingam Lakshanam Chinham Akritih” Vaagbhata-nidaana.

The Poorvaroopas, when they are manifested in the disease, are called Roopas. The synonyms given for the word Roopa are (1) Samsthaana (2) Vyanjana, (3) Linga, (4) Lakshana, (5) Chinha, and (6) Aakriti.

Samsthaana means that which establishes a disease i. e. the symptoms by which a disease is definitely known.

Vyanjana—Those token signs that manifest a disease; the root Vya means to reveal.

Linga—The characteristic by which a disease is known.

Lakshana—A symptom of a disease.

Chinham—A mark by which a thing is identified

Aakriti—The shape of a substance.

All these six synonyms of the word Roopa indicate the signs and symptoms by which a disease is identified. Utpanna vyaadhibodhakam eva Lingam Rupam-Vijayarakshita's commentary.

It is only the symptoms, that denote a disease that has already established itself that are called Roopas. In this definition, it is intended to state definitely that Poorvaroopas which existed before the onset of disease, are not Roopas and only those tokens that indicate a disease are called Roopas. The question now arises whether the sum total of Roopas is in itself a disease or not. There is a popular

CHAPTER IV

ROOPA

way of looking at it and a scientific way. Ordinarily when we speak of Jwara (fever) we intend by that term Jwara, all the signs and symptoms by which the fever is expressed or manifested. Here, fever is taken as a disease and not as a symptom. In other cases, say in dysentery or leprosy, fever may exist along with other predominant symptoms of dysentery or leprosy, then we consider fever as one of the symptoms of the disease and not the disease itself. Arochakam (anorexia) may be one of the symptoms of fever but anorexia may sometimes exist without any fever at all and may be the only symptom. Under these circumstances, we consider anorexia as a disease. Any number of instances may be given in which a group of symptoms or symptom-complex, or syndrome as it is often called is considered and treated as a definite disease, whereas, after all, the disease which gives rise to all these symptoms, is altogether different. In fact we know that none of these symptoms nor the sum total of them is the disease.

Disease is defined as Dosha Vaishamyam, i. e., abnormality or want of equilibrium of the Dosha or according to Savill 'a departure from health.' Dr. Benerjee defines disease as an abnormal state of the living body. In Aayurveda, it is said that in disease there is an abnormal interaction between Doshas and Dushyas. This kind of interaction is called Dosha-Dushya-Sammurchanam. When this abnormal interaction takes place, certain symptoms are produced according to the nature of the abnormality in each case. For instance, in the case of Raajayakhmaa, the interaction between Doshas and Dushyas, produces a symptom-complex of cough, burning sensation near shoulders, hoarseness of voice, fever, pains in the sides and head, spitting of sputum and of blood, dyspnoea, diarrhoea, wasting and so on. Another kind of abnormal interaction between Dosha and Dushyas causes insensibility of feeling, profuse sweating or absence of sweat, discolouration of the skin, eruptions or elevated patches of skin and nodules, shooting pains, numbness etc. which when assembled, go to form the symptom-complex or disease known by the name of leprosy.

Now the question has been asked whether these symptoms by themselves form the disease. Everyone knows that the symptoms are not the disease but the abnormal condition of the body which causes these symptoms, is the disease: vet in common language and also

sometimes, in text book terminology, a name given to the group of symptoms, or to one symptom alone is accepted as the name of the disease. The great Charakaacharya himself has given his consent for using such nomenclature for purposes of convenience in the identification and treatment of disease.

*Jnaanaartham yaani choktaani Vyaadhilingaani Samgraha
Vyaadhayaste tadaatwelu lingaaneestaani naamayaah."*
Nidaana—Chap. 8. Verse 35.

It often happens that for the sake of easy understanding, symptoms by themselves are spoken of as diseases in the section on Nidaana. This was done for the sake of convenience but the symptoms are only symptoms and they can never be diseases.

All this discussion becomes necessary in order to emphasise the importance of treating the real cause of the disease. The purpose of treatment should be to break up Dosha Dushya Sammoorchanam i.e. the abnormal interaction between Doshas and Dushyas. Once this is broken up, both the Doshas and the Dushyas can go back to their normal condition.

Although for purposes of convenience symptomatic treatment is sometimes given, the original object of the treatment should never be forgotten. For this purpose a knowledge of minutest details of the Roopas or signs and symptoms becomes essential.

CHAPTER V

UPASAYA

DIAGNOSIS BY EXPERIMENTAL TREATMENT

Upasaya is already stated to be a form of diagnosis by applied therapeutics. The physician after making a thorough investigation of the case according to the methods of Nidaana, Poorvaroop, Roopa and Sampraapti (to be described hereafter), may be still in doubt as regards the true nature of the disease i. e., the vitiated Doshas etc. and then he should use this method of experimentation. For example, one may be in doubt whether a particular disease is caused by Vaata or any other Dosha in a particular organ. Assuming tentatively that the disease is caused by deranged Vaata, the physician administers anti-Vaata measures e. g. anti-Vaata medicine or Snigdha diet or a hygienic treatment like Snigdha Sweda etc. If the disease is ameliorated thereby, his tentative diagnosis is confirmed; this is called Upasaya. He is then enabled to pursue the treatment by anti-Vaata measures in a proper and vigorous manner. Thus the medicine, or food or the hygienic treatment which has given relief is called Upasaya. If the patient feels worse on the other hand the anti-Vaata treatment in this instance, is termed Anupasaya; then it is immediately stopped and suitable other measures are taken. Thus by knowing the Anupasaya, the physician is enabled to take an entirely different course. Here this sort of experimentation is not the experimentation of a quack who has no knowledge whatsoever of the fundamentals of diagnosis and treatment. There is a vast ocean of

difference between those two sorts of approach to the patient. Charakaacharya says "Gudhalingam vyaadhim Upasayaanupasayaa-bhyam Pareeksheta (Vimaana-Chap. 4) i. e., an unmanifested or obscure disease may [be investigated by Upasaya. It should be the last resort of the intelligent physician for the purpose of diagnosis of a disease with hidden symptoms.

Upasaya is thus defined as an unbroken sequence (*Anubandha*) of relief (*Sukha*) from diseases obtained by the use of medicine or food or *Vihara* (hygienic conduct). *Upasayah Oushadhadijanitah Sukhanubandhah*. Note the words '*Sukah*' and '*Anubandha*' here. The relief felt by removal of the disease is just like the relief felt by a person when a great burden is taken off his shoulders and this relief should be of a permanent character. A temporary feeling of relief which may be felt by the administration of soothing medicine like opium; of palatable foods or of a seemingly agreeable conduct is not *Upasaya* if that food or other treatment aggravates the disease. Such a measure is, in fact, an *Anupasaya* as it makes the patient worse, in course of time, in spite of its temporary palatability.

Upasaya is also called *Vyadhisatmya*, i.e., that which is conducive to the welfare of the patient by giving relief from the disease. Both these terms are used synonymously.

UPASAYA IS OF SIX KINDS

- (1) *Hetuvipareetha*:—By carefully studying the cause of the disease, such medicine, food or hygienic conduct as would counteract the actual cause must be administered. Such a medicine or food or hygienic conduct is called *Hetuvipareetha Upasaya*.
- (2) *Vyadhivipareetha*:—By studying carefully the nature of the disease through its symptoms, medicine etc., or to be administered with a view to produce the opposite symptoms. These medicines, diet and hygienic conduct are called *Vyadhivipareetha Upasayas*.
- (3) *Hetuvyadhivipareetha*:—In certain cases both the cause and the result (the disease) are to be taken into account. In such cases medicines etc., that would produce the opposite of both the cause and the disease are to be given. Such methods of treatment are called *Hetuvyadhi Vipareetha-Upasayas*.

- (4) *Hetuvipareetharthakari*:—The *Arthakari* medicine food, hygienic conduct are those which are similar to the cause of the disease but when suitably administered, they afford a cure, paradoxical though it may seem. Such treatment etc., are called *Hetuvipareetharthakaree Upasayas*. Since this form of medicine diet etc., produces finally the same result as the *Hetuvipareetha upasaya* it is called by the name of *Hetuvipareetharthakaree*. *Artha* means here purpose. As this form of medicine etc., fulfils the same purpose viz. amelioration of the disease like *Hetuvipareetha* medicine etc., it is termed as *Hetuvipareetha arthakaree*.
- (5) *Vyadhivipareetharthakari*:—This form of medicine, diet etc., though it seemingly increases the disease itself, affords relief to the patient by effecting a cure. Such a form treatment is called *Vyadhivipareetharthakari upasaya*.
- (6) *Hetuvyadhivipareetharthakari*:—In this particular case medicines etc., that would produce the same condition of cause and also disease are to be administered. That is to say, the *Arthakari* medicine is that which acts beneficially effecting a cure like a *Hetuvyadhivipareetha* medicine etc., although it may appear at first sight, that such treatment is similar both in cause and its effects to the original disease.

Each of the six kinds of *Upasayas* is divided into three classes according to the use of medicine, diet and hygienic conduct, thus making eighteen varieties of *Upasaya* as enumerated below.

- (1) *Hetuvipareetha Upasaya*:—

(a) *Medicine*:—The administration of *Sunthee* (ginger) which has *Ushnatwa* quality, in *Kapha* diseases caused by *Seetha* or cold (*Seethatwa* quality).

(b) *Diet*:—The administration of *Mamsa Rasa* or meat juice (a form of food) in fever caused by fatigue. Here *Mamsa Rasa* is used to remove fatigue which is the cause of the fever.

(c) *Hygienic conduct*:—In a disease of *Kapha* type which is caused by excessive sleep in the daytime, the act of keeping awake in the night is undertaken to counteract *Kapha*.

(2) *Vyadhivipareetha Upasaya:—*

(a) Medicine:—The administration of astringents in diarrhoea; the administration 'Khadira' in Kushta (leprosy); the administration of (a specific like) Sireesha in Visha (poison). Here the medicine is given as a specific in the particular disease in a routine manner irrespective of the nature of the deranged Doshas.

(b) Food:—Taking pepper soup is useful in indigestion.

(c) Hygienic conduct:—The act of straining when passing stools is advised in Udavarttha, a disease with severe constipation, pain in abdomen due to irregular peristalsis as a therapeutic measure.

(3) *Hetuvyadhivipareetha Upasaya:—*

(a) Medicine:—The administration of Dasamoola which is both Vaatahara (anti-Vaata) and Sodhara (antiphlogistic) in Vaatasodha, i.e., an inflammation caused by Vaata. Here Dasamoola is the ameliorative measure for checking the cause (Vaata) as well as the disease Sodha (inflammation)

(b) Diet:—The administration of Takra (buttermilk) is especially recommended in Vaatakapha Grahane, a sort of lentic diarrhoea. Here Takra checks Vaatakapha and it is also a specific for Grahane.

(c) Hygienic conduct:—In sleepiness (Tandra) produced by the use of excessive Snigdha foods, the act of waking up (Jagarana) in the night is recommended. Here the act of keeping awake is Rooksha (opposite of Snigdha) and thus it is the opposite of both the cause and disease.

(4) *Hetuvipareetharthakari:—*

(a) Medicine:—In an inflammatory process of Pitta type, we recommend the external application of Upanaha Sweda (hot fomentation or application of warm poultice) with substances or drugs that promote Pitta. This measure looks paradoxical be-

cause drugs with produce Pitta, are employed in inflammation of Pitta type.

(b) Diet:—In inflammation heading towards suppuration (Pachyamanasotha) the administration of a stimulant diet is recommended, which produces Vidaha (burning sensation) and Pitta. Here the disease is caused by Pitta, the agents employed to effect the cure also promote Pitta.

(c) Hygienic conduct:—Threatening a patient suffering from insanity of Vaata type with disguised robbers, police etc., is resorted to as a treatment. Fear, which is one of the causes of promoting insanity, increases Vaata, but, here, it helps the patient as an ameliorative measure.

(5) *Vyadhivipareetharthakari:—*

(a) Medicine:—In a form of vomiting, the administration of an emetic is recommended to cure it. In diarrhoea initial administration of castor oil is often recommended.

(b) Diet:—In diarrhoea milk diet, which is also a laxative according to Aayurveda, is often useful.

(c) Hygienic conduct:—In a form of vomiting, straining to vomit more sometimes effects a cure.

(6) *Hetuvyadhivipareetharthakari:*

(a) Medicine:—Administration of poison to cure a case of poisoning.

(b) Diet:—In alcoholism, the administration of alcohol is sometimes recommended.

(c) Hygienic conduct:—In Moodha Vaata (a sort of Vaata disease) caused by physical exertion, swimming is recommended as an ameliorative measure.

Thus the six kinds of Upasaya are illustrated. The Anupasaya which is the opposite of Upasaya is also included in Nidana, because it also helps in diagnosing a disease by its negative effect.

CHAPTER VI

SAMPRAAPTHI

Sampraapthi means the description of the Pathology of the Tridoshas, Dhatus, Malas, etc. or in other words, it is the description, in detail of all the morbid processes that take place in different diseases or in different stages of the same disease. The accumulation of the Doshas, their movements and the particular form which the disease takes, are included in Sampraapthi. The words Jaati, Aagati are its synonyms.

For example, the Doshas, vitiated by various causes enter into Aamasaya and expelling the Jaatharaagni out of its place extend themselves into the Rasa Dhatu and cause fever. Such descriptions of the morbid processes are included in Sampraapthi.

Sampraapthi is sub-divided according to Sankhyaa, Praadhaanya, Vidhi, Vikalpa, Bala and Kala.

(a) Sankhyaa or number: the number of varieties or types in which diseases may manifest themselves, e.g., five varieties of Kasaa (cough) five types of Paandu (anaemia), etc.

(b) Praadhaanya or predominance of a particular Dosha or Doshaas or the ascertainment whether a disease is Swatantra (primary) or Paratantra (secondary to or complicating the primary disease).

(c) Vidhi or order or classification with reference to either the two-fold cause as idiopathic (Nija) or traumopathic (Agantu), or to the three-fold classification or Tridoshaas or the four-fold classification of Saadhya (curable), Asaadhya (incurable), Kicchrasaadhya

CHAPTER VI

SAMPRAAPTHI

(curable with difficulty) and Yaapya (incurable but by judicious diet and conduct, life can be prolonged).

(d) Vikalpa or the measure in which the Doshas are excited in the Doshic triad or the measure in which the Dosha Gunas that excite the Doshas exist.

(e) Kala:—the time-factor which makes the disease severe, moderate or mild, i.e., the seasons, day night, hour of eating, etc.

(f) Bala is the strength of a disease, known by the severity of the attack, presence or absence of all the symptoms, etc., and so on.

SIX STAGES IN THE COURSE OF DISEASE

Six stages are recognised in the course of a disease. If, in the first stage, the processes of the derangement of the Doshas is checked the disease processes will not proceed further. If however, the derangement of the Doshas is not recognised and if prompt treatment is not given the damage continues and proceeds to the next stage. Similarly when each of the successive stages is neglected the disease takes a definite shape and may sometimes become incurable.

The following six stages called Kriyakalas are described in the Doshic changes during the course of a disease:—

(1) Sanchaya is the accumulation or stagnation of the aggravated, attenuated or vitiated Doshas in their respective places, instead of circulating freely. This is the first Kriyakala.

(2) Prakopa or excitation. The altered Doshas then get swollen up or excited. This constitutes the second Kriyakala.

(3) Prasara. Afterwards the excited Doshas spread to various other places. This is the third Kriyakala.

(4) Sthanasamsrayam or the specific location. The abnormal Doshas get located in other sites causing specific diseases in the parts affected constituting the fourth Kriyakala. By this time the disease manifests itself clinically as Poorvaroopa or prodromata.

(5) Vyakti or Manifestation. In this the clinical features are manifested fully and correspond to the Roopam or symptom-complex of the disease. This is the fifth Kriyakala.

(6) Bheda or variation is the last stage wherein the disease runs its course, either subsiding wholly, or getting chronic or causing

the death of the patient according to the gravity of the condition and the treatment adopted. This is the sixth Kriyakala.

For detailed information the reader is requested to refer to the Principles of Pathology by the Editor.

CHAPTER VII

ASHTA STHAANA PAREEKSHA

INTRODUCTION

*Rogaa Kraanta Sareerasya sthaana nyastau vilokayet,
Naadeem mutram malam jihvaam sabdam sparsam
drugaakritee.*

(Yoga Ratnakara Vol. I. Pradhamakanda. V. 35).

We have already said that, in the investigation of a disease, various methods were adopted at different times. (They are (1) Panchalakshana Nidaana and (2) the investigation of the disease by the logical methods of direct observation, reasoning, inference, and acceptance of testimony of reliable authorities known as Pramaana chatustaya; (3) The third method of investigation is by physical examination and interrogation, Panchabhir Indraya Prasinenacha; (4) The fourth method of investigating disease, which has been current throughout India, at least for the last 1,000 years is known as the Astasthaanapareeksha. To me it appears that the physicians of the latter days evolved these eight clinical methods of examining a patient from actual experience and practice for purposes of provisional lightning diagnosis. In fact this became very popular and is followed even by the village practitioners, who may not know the theories on which some of these observations are based.

Although we do not find vivid descriptions of the method of counting and evaluating the results of the examination of the pulse

in the Vriddhatatrayee, (i.e.) Charaka, Susruta and Vaagbhata, there are evidences that they knew definitely Spandanam(pulsation) of the Dhamanees (arteries). Charaka and Susruta knew (1) that the blood circulates in the human body and furnishes all the cells and organs with food materials including air, (2) that it gets depleted (3) that the solid liquid and gaseous portions of the blood are replenished thereby through digestion in the stomach and intestines and that the gaseous portion (Vaayu) is further replenished through the inspiration (drawing in) of the atmospheric air. Just as in the Aama-saya food is digested and the Mala is excreted so also in the lungs, the air is digested (the oxygen portion is absorbed) and the Mala or impure air (carbon dioxide) is excreted. It will thus be seen that the essential principles of blood circulation and respiration were clearly understood by them.

DEFINITION

Astasthaana Pareeksha may be defined as the investigation of a disease by the examination of the following eight categories (Sthaanaas), namely, the pulse (naadi), the urine (mootram), the faeces (malam), the tongue (jihva), the sound (sabda), the touch (sparsa), the eyes (druka) and the appearance (aakriti).

*Aadau Samastha Rogeshu Hyasta Sthaanam Pareekshayet
Naadeem Sparsamcha Rupamcha Sabdam Netre Pareeshakam,
Mootram Varnamcha Jeehvaamcha Hetaan pasyed bhishagvarah.
(Vaidya Chintamani, Ch. I. V. I.)*

The above eight items of the investigation appear to be adopted by most authors. Some include Danta (the teeth) and Nakha (the nails) in the list of eight categories instead of the eyes and appearance.

Astasthaana Pareeksha was probably systematised about 1000 A. D. or thereafter as there is no reference to this method of diagnosis in the classical authors of Susruta, Charaka and Vaagbhata or other commentators. Saarangadhara does not use the word Astasthaana Pareeksha but he gave a detailed description of naadi (the pulse), which is the chief among the eight categories of this

investigation. The authors of Yogaratnakara and Lolambarajeeya gave vivid descriptions of these eight methods of investigation. This method was probably introduced through the Yoga or the Siddha systems which prevailed in South India from early days.

Charaka and Susruta might have known about its practice in this country but they probably did not recognise it as a system. Their condemnation of other schools of thought with which they did not completely agree is very clear.

In Chapter 8, Vimaana Sthaana, Charaka says :

*“ Saastrameva aaditah pareeksheta
Vividhaanihi Saastraani, Bhishajaam Pracharanti loke.
Etc., Etc. Vimana Ch. 8. V. 3.*

He discourages those systems which were not recognised by the Rishis and which involve secrecy. This system of Yoga may have probably existed concurrently at that time but was not probably studied in detail by the Aayurvedic students but it was allowed to grow in its own way. However, there was mention of Daivavyapasraya Chikitsa (treatment by faith and by sacrifices) and Satvavajaya (treatment by self control, by Yogic practices) amongst the principal methods of treatment.

Charaka—Sootra Chap. II. V. 62.

CHAPTER VIII

NAADI—THE PULSE

SROTAS, SIRA, DHAMANI AND NAADI

The words Srotas, Sira, Dhamani and Naadi were used generally to denominate all channels in the body whatever be the substance they carry from one place to another. (Charaka Sareera—Chapter 9, V. 43). Even at that time, Susruta insisted upon the differentiation of these different channels. They could be easily identified, when they were big, although they were running side by side in different parts of the body, but when they became more and more minute, they found it impossible to trace out their courses with the naked eye. They however recognised that every pore in the skin had its own nerve, blood and lymph supply. It was calculated that there were about seven hundred Siras and two hundred Dhamanees, which could be easily enumerated but when the minute Siras and Dhamanees were counted with their tributaries and branches, their number was estimated to be the same as the number of the hair follicles which were distributed throughout the body. At a rough estimate their number was calculated at two hundred and ninety thousand and nine hundred and fifty six (290,956).

Charaka says that even so far they are calculable but beyond this their number can only be guessed (Tarkvam Atah Param—Charaka—Sar-Ch. 7-17). This shows that they did not neglect the study of the anatomy of the human body and that they bestowed

CHAPTER VIII

SROTAS, SIRA, DHAMANI AND NAADI

the greatest care to learn the minutest details of the various systems of the human mechanism.

The following general observations made by them are noteworthy. While those Srotas vessels which carry nutrition to the body such as the arteries are large at the source and they become more minute at their terminations, the channels or Srotas carrying malas or excretory substances like urine are very minute at the sources and become larger towards their terminations.

The study of the naadi (nerves) however was specialised by the Yogis and they classified the big nerves as 2 and the smaller branches as 72,000. In Yoga Sastra, the names of the fourteen naadees and their functions are mentioned as follows.

1. *Sushumna*:—running up in the spine upto Brahmarandra.
2. *Pingala*:—running upon the right of Sushumna and ending in right nostril.
3. *Ida*:—running upon the left of Sushumna and ending in left nostril.
4. *Hasti jihva*:—running down in the left and terminating in the big toe.
5. *Yasasvini*:—The trunk in the right leg terminating in the big right toe.
6. *Kuhu*:—The nadi that has its sphere of influence terminating in the Vagina.
7. *Alambusha*:—That which terminates at the anus.
8. *Gandhara*:—That which terminates in the left eye.
9. *Pusha*:—That which terminates in the right eye.
10. *Sankhini*:—That which terminates in the left ear.
11. *Payavaini*:—That which terminates in the right ear.
12. *Sarasvati*:—That which terminates in the tongue.
13. *Viswodara*:—That which terminates in the face.
14. *Varuna*:—That which has its influence spread throughout the whole body.

In addition to the 14 trunk Naadees, there are five afferent or sensory nerves which carry impulses from the periphery to the centre, namely, the impulses of sabda, sparsa, rupa, rasa, and gandha and five efferent or motor nerves which start from the centre and

discharge impulses at the periphery. The five latter are named the naadis which are responsible for the actions of vak (speech), pani (reception by hands) paada (locomotion by legs), payu (excretion) and upastha (procreation).

Thus the 24 big trunk Naadees are accounted for. The Yogi by his practice can easily control any of these 24 spheres of nervous influence at his will without at the same time affecting the other spheres. The difference between voluntary and involuntary appears to be nullified in his case. He can by his will reverse the action of the muscles supplied by any plexus of nerves. Instead of throwing out urine from the bladder, a Yogi can suck water into the urinary bladder through the penis without the aid of the catheter.

I have noticed an extraordinary demonstration of a Yogi sucking into the urinary bladder forty tolas of mercury through the penis. (Demonstration conducted by Sri Narasimha Yogi at the All India Aayurvedic Congress held at Lahore in December 1942.) Such is their control of the autonomic nervous system.

In order to understand the meaning of these Yogic processes, we must know the terminology used by them. The words, Vaayu, Praana, Sushumna and Brahmarandra have to them a different meaning. Praanaayaama may mean breathing air in and out in the ordinary sense but to the Yogi it is the control of the whole system of nervous mechanism in the human body.

All this introduction has become necessary in order to understand the full implications of Naadi pareeksha. It is not enough to study the pulsation of the artery at the wrist. Naadi Vijnaanam is the science of the Naadi, which includes the study of life processes which are responsible for the living existence of man. Naadi is said to be Jeeva Sakshi, the evidence of life. Sarangadhara says, (Ch. I V. 3) as follows :—

*Karasya Angustha moola Yaadhamani Jeeva Saakshini
Tachchestaya Sukham Dukham Jneyam Kaayasya Pandita*

There is a dhamani at the root of the thumb, which gives us the evidence of life and which is therefore called Jeeva Saakshini. By studying its action, wise men may learn all about the happiness or misery, i e., about normal or abnormal condition of the human

body. He uses the word Dhamani in the first sloka and the word Naadi in the next.

*Naadi dhatte marutkope Jalauka Sarpa yorgatim
Kulinga Kaaka Mandooka Gatim Pittasya kopatah
Hamsa Paaraavata Gatim Dhatte Sleshma prakopatah.*
(Sarangadhara, I. 3, 2).

It means that the Naadi under the influence of Vaata pulsates in a particular manner, under the influence of Pitta in another manner, under the influence of Kapha in the third manner and under the influence of various combinations of these three elements the Naadi behaves in a different way. The Dhamani or Naadi referred to here is no doubt the radial artery. Its gati or motion does not merely indicate the rate or rhythm of the pulse, the size and condition of the arterial wall or the volume of blood that flows through the artery or the force with which the blood flows. The gati or motion of this Naadi also indicates the derangement of vaata, Pitta and Kapha which are respectively known by the pulsating Naadi (Dhamani). The sum total of whole impression that the physician acquires, through the degrees of abnormality that exists in the vitiation of Vaata, Pitta, and Kapha, helps the physician to estimate the prognosis. That is why this Naadi is said to be Jeeva Saakshini.

THE OBJECT OF STUDYING THE PULSE

This investigation is used chiefly to ascertain, the deranged dosha or doshaas, the extent to which they are respectively deranged and also to forbode any complications or impending death. Some Aayurvedic physicians were reputed to be great experts in this art of reading the pulse.

In fact, the pulse is recognised to be Jeeva Saakshi, the evidence of life. The prognosis of a physician at very critical moments when death is threatening, depends upon his accurate study of the pulse and all the capacity of the physician should then be at his command. Otherwise his whole reputation will be at stake. It is therefore very essential that every physician should acquaint himself with all the

details of the pulse reading although he may not expect to be an expert in the art, unless he is endowed by birth with this faculty.

YOGIC CONCENTRATION

The knowledge of the pulse (Naadi vijñanam) embraces in itself a vast science. It is partly based on the physical examination of the artery and partly on the concentration of the mind that the physician can bring to bear at the moment of the examination. It is not a cursory counting of the pulse rate, which any nurse automatically does in the wards as 72 or so per minute. It is not a mechanical affair. The whole scheme of the examination of the pulse (Naadi vijñanam) is still a sealed book to modern medicine. To be perfect in the science, requires the development of Yogic powers. It involves the power of concentrating the mind and of bringing it into contact with the Soul. (Aatma Samyoga-Charaka-Vimāna-Ch. 8—V. 48), thereby drawing out infinite forces yet unknown to modern science. This is called the Samyama stage or Samaadhi (See Yoga Darsana).

The physician, in fact, should learn to enter into the state of Samaadhi before he gets enlightenment or true knowledge of the case. Charaka enunciated this idea as follows:—

*Jnaana buddhi pradeepena yo naa visati
Tattvavit (yogavit)
Aturasyaantaraatmaanā nasa
Rogaan schikitsati*

Charaka.....)

A physician who cannot enter into the body of the patient with the bright lamp of true knowledge and who is not a tatvavid (a yogi) with spiritual powers cannot treat a patient satisfactorily. Here the idea implied is of the nature of samaadhi (the concentration of a yogi). It is not an ordinary metaphor. This is the state of mind which should be attained by practice, and realised.

THE THREE CONDITIONS NECESSARY

There are three conditions which are ordinarily acknowledged to be necessary for successfully obtaining a knowledge of any art or science like Yoga.

1. They are Daivaanugraham (the unknown hereditary factor).
2. Gurukataaksham (the grace of the teacher) and 3. Abhyaasa (continued practice).

1. THE UNKNOWN HEREDITARY FACTOR

Unless one is endowed by birth with the faculty or aptitude for learning a certain art or science, it would be difficult to acquire sufficient knowledge of the subject.

The subject of Naadi or a knowledge of the pulse is compared to the mastery of the art of music.

*Yadha vinaa gataa tantree Sarvaam Raagaan prabhaashate
Tathaa hastagathaa Nadee Sarva Roga prakaasini.
(Nadee Darpana).*

Just as the string of a veena (a musical instrument) brings out all the octaves (Sarvaam Raagaan), so also the Naadi that lies at the wrist brings to light the intricacies of all diseases (Sarvaan Rogaan).

I have personal experience of what this means. However much I tried it was impossible for me to differentiate the notes, (raagaas, in Indian music), but my little children can identify most of the raagaas (notes) without any effort or training. This faculty was inherited by them at their birth and through their mother. This is called poorva karma, (See Darsana). Although poorva karma is not in his favour a human being may however, by his own effort improve his knowledge and condition by special education but this will be a more difficult task. There is, therefore, much in the hereditary factor that contributes to the gulf of difference between the knowledge possessed by a person, who is richly endowed with this special faculty at birth and another who is not so endowed.

2. THE GRACE OF THE TEACHER

Even in the study of the material arts, a regular training under a good teacher gives a great opportunity for acquiring skill in those arts. In the case of such a delicate art as the practice of medicine and particularly for the study of the pulse, the guidance of a suitable

teacher counts a great deal. The student should with humility and absolute faith in his preceptor concentrate on his studies without raising unnecessary doubts. The Guru then takes the responsibility of giving necessary guidance to the student. *Pranipatena Pariprasnena Sevaya* (Bhagavat Gita).

If the student starts like a doubting Thomas and begins to question his teacher at every step, he can never make any progress in a science like medicine, which is partly a spiritual training. It is only by a devoted and a faithful study under a suitable Guru that real success can be achieved in the practice of any science or art. Although I do not wish to underestimate the value of delicate instruments, such as the Sphygmometre for recording the radial pulse, I wish to emphasize the fact that the most delicate of instruments is only subordinate to the super-sense that can be developed by concentration and practice. Once this extraordinary sense is developed, concentration of mind and Samadi Sidhi become easy matters.

3. ABHYASA—CONTINUED PRACTICE

The continued practice or Abhyasa is one of the methods of acquiring knowledge. But this is the most difficult of the three methods. It is an uphill task for one to reach the goal, unless he is guided by a capable Guru, and unless the faculty is endowed upon him by birth. Helped by these two other factors, Abhyasa is necessary for maturing the art and for achieving success.

BOOK KNOWLEDGE NOT VERY HELPFUL

After studying all the available literature on the pulse, I have come to the conclusion that it cannot be secured by merely reading books. Although the literature on the subject agrees fundamentally on the main points, there are differences between the statements of different authors and the statements of the same author at different places. The only way of explaining away these differences is to consider them to be latter interpolations. The available literature is very vast. The best way to learn the subject of the pulse (nadi) is for a student to attach himself devotedly to a Guru and to imbibe the teacher's long experience.

VAATA, PITTA AND KAPHA PULSE

However, any student may easily gather information on the following 3 points by a careful study at the bed side.

1. Size or volume of the pulse.
2. Number or rapidity of the pulse.
3. Rhythm or regularity of the pulse.

The first, namely, the size includes the condition of the vessel wall. The 2nd and 3rd denote the condition of the working of the heart.

The size depends upon the state of Kapha predomination, the rapidity upon the state of Pitta predomination, and the regularity on the Vaata condition. Having gathered a correct idea of these basic influences of Vaata, Pitta, and Kapha dominance, their indications have to be studied in greater detail. To put it in a nut shell we have to classify all our observations under these three classes of vaata, pitta and kapha predomination. In order to make it easier for the student to recognise, these three main divisions in the Gati of the pulse, they gave illustrations of the gati or gait of various animals, birds, and reptiles that a student sees around him in his daily life.

Size:—Size indicates: 1. the volume of food materials that are absorbed into the blood stream and that again depends on the condition of the lymphatic system. This is primarily due to the influence of Kapha which has its generating seat in the area of the stomach and digestive organs (Amasaya); 2. The number or rapidity is indicated by the condition of the vascular or circulatory system. This is due to the influence of Pitta or heat mechanism as determined by the metabolism. 3. The rhythm or regularity indicates the general condition of the nervous system or the vaso motor control of the body as a whole and this is mainly due to the influence of Vata or the nervous mechanism or vital power.

Having realised these fundamental influences, it is necessary for the student to study the other details relating to time (morning, mid-day, evening or midnight and cold and hot seasons), food (light or heavy etc.), diseased condition or other internal or external changes that take place in the human body and its environments.

THE GATI OF NADI COMPARED TO THE GAIT OF ANIMALS, ETC.

The movements of the nadi are compared to those of various birds, animals and reptiles for the easy understanding of the pulse by beginners. Although there are slight differences amongst different authors, they all agree in the main.

*Nadee Dhatte Marutkope Jalauka Sarpa yorgatim
Kulinga Kaka Manduka gatim Pittasya Kopatah
Hamsa Paravata gatim Dhatte Sleshma prakopatah.*

(Sarangadhara 1-3-1).

Meaning:—In excited Vata, the movement of the pulse is (cree-
ping) like the gait of a leech or a serpent; in excited Pitta, it is jum-
ping) like the gait of a sparrow, a crow or a frog, and in excited
Kapha, it is (steady) like the gait of a swan (goose) or a pigeon.

1. VATA PULSE

It is universally accepted that the movement of the Vata pulse resembles the gati (motion) of the leech and the serpent. The points to be studied here are the creeping and crooked movements of the serpent (kutila gati) and the wavy movements of the leech. Vakra or crookedness is the chief characteristic of Vata predomination which is beautifully illustrated by the movements of the snake. A stringy thinness of a serpent running very fast is also one of the characteristics of the Vata pulse. When studying the Vata pulse, we should also keep in mind the missing character of the beats which resemble the movements of the leech which stops for a time and then moves again, halting and moving at its pleasure.

2. PITTA PULSE

It is universally accepted that the gati of Pitta pulse has a resem-
blance to the movements of the sparrow, the crow or the frog. The
points to be noted here are the quickness of the movements of the

sparrow, the hopping movements of the crow and the jumping move-
ments of the frog. When we study the Pitta pulse, we should also
keep constantly in mind the idea of the number of pulse beats, which
is an indication of the rapidity of the heart beats and of the metabo-
lism of the body, for example, the febrile condition.

3. KALPA PULSE

It is universally accepted that the movements of a Kapha pulse
have resemblance to the movements of a swan, or the elephant or the
pigeon. The points to be noted here are, the steadiness of the gait of
the swan, the bigger size as indicated by the heavy and steady move-
ments of the elephant and the gentleness of the movements of the
pigeon.

We have to constantly keep in mind when we study the Kapha
pulse an idea of the fullness of the artery and of the volume of the
fluid that is passing through the system at any moment. This is
again determined by the condition of the lymphatic system or the
watery constituents in the patient's body.

GENERAL REMARKS

The above illustrations gives only a crude idea of the funda-
mentals of this great science and art of pulse reading. They are
only intended for the easy understanding of a beginner in the
study of the pulse. It is like a diagrammatic representation of certain
scientific facts by exaggerating some particular points for popular
understanding. The practitioner has to bring into action all his
powers of imagination and he should not utilise his practical know-
ledge of the movements of a few birds, reptiles and animals illus-
trated above but should also imagine the combinations and permuta-
tions of the various other movements, which his imagination is
capable of. It is here that the concentration of Yogic powers should
be rapidly brought into spontaneous action.

For this purpose, following the examples of many great Aayur-
vedic physicians, I usually close my eyes for the moment when
examining the pulse and concentrate my whole attention on the study
of the whole man and his disease through the medium of his pulse.

At that moment no sound can affect my ear. No other disturbance can disturb my equilibrium. This is the state of Samaadhi, which I said the physician shall enter into, while studying the pulse.

*Sthira chittah prasaantaatma Manasaacha Visaaradah,
Spruset angulibhih Nadeem Jaaneeyat dakshine kare.*
(Yoga Ratnakara, I. Ch. I-V. 44).'

A physician, who is steadfast in mind, i. e., with his whole attention fixed on pure changeless consciousness (Sthirachittah), who is free from all feelings such as desire and hate (Prasantaatma), who is peaceful in mind (Manasaacha) and who has a perfect sense of judgment (Visaaradah), in fact, a perfect yogi, should touch the pulse at the wrist in the right hand of the patient with the tips of his fingers and learn for himself all about the condition of the patient. Just think over the adjectives used to describe the mental state of the physician when he attempts to study the pulse. According to Aayurveda Antahkarana, the internal instrument of the Soul, is subdivided into four parts :—

Manah, Buddhi, Chitta and Ahankaara.

All these four faculties have to be in their perfect state of concentration as required for a Yogi in the Samaadhi state. This terminology itself is borrowed from the yoga philosophy. However delicate a laboratory instrument may be, it cannot be compared to reach the perfectness of the yogi's mind. A mechanical instrument is after all an auxiliary to the human mind.

EXAMINE THE MAN AS A WHOLE

Nothing, however, prevents the physician from bringing into consideration all other signs and symptoms that he may have observed during the course of his examination of the patient. The general conduct and habits of the patient, the facial expression, the feeling of heat and cold, the capacity for taking food, the capacity for exertion which the patient possesses, the nature of his sleep, the nature of the respiratory movements, the previous and present

history of the disease and a thousand other things may be brought into consideration, when the final decision is made regarding the diagnosis and prognosis of each case. The pulse, however, gives the final, deciding and casting vote.

PULSE INDICATING DEATH

The greatest value that can be obtained from the examination of the pulse will be realised, when the physician has to determine whether and when the patient is likely to die. His laboratory instruments are not always with him. His reputation depends upon the good or bad prognosis that he is expected to declare at a very critical moment at the bedside. When the physician informs the relations of the patient, that the patient is about to die and when he does not die, the physician's reputation is at stake and conversely when the physician says that every thing is alright and that there is no danger and if the patient suddenly dies against his own expectations, the physician's reputation is again lost. The reputation of the physician in this matter is of the greatest importance and although the examination of the pulse may not be the only guidance it may be said that a careful and devoted practice of the study of the pulse, combined with a good knowledge of the science of Aayurveda, enables the physician to forecast the onset of death to a remarkably accurate degree, if not with certainty. If some great men can foretell the exact time of death by their intuitive powers or by their skill and practice, some days or some months or even years in advance, I do not distrust their capacity. All honour to them. They are intellectual giants. The man may look like an ordinary man but he might have developed these extraordinary powers by the grace of his Guru or by his intuitive powers. In them, the development of a sixth sense, is a factor which many ordinary human beings cannot achieve. A yogi only can perform these extraordinary feats of intellectual strength. I do not however mean to say that there are not many pretenders who cheat the gullible public. The whole book of Indriya Staana in Charaka deals with the determination of the prognostic signs and symptoms foreboding death (Arishtaas).

Although every physician cannot become a Yogi all at once, every one should learn to concentrate as best as possible, on his work. Yoga is defined as dexterity in one's work.

"Yogah Karmasu Kau'salam" Geeta. 2-50.

It need not be emphasized that all the knowledge, the tact and all the practical experience of the physician should be brought into action when the pulse is examined, with the idea of determining the prognosis in each case and at all times. If great importance is attached to this subject in Āyurvedic texts, the reading of the pulse does not mean the cursory counting of the pulse or the determination of its volume and its rhythm in an ordinary manner. What is intended is much more. For instance, a careful observer should easily recognise impending death by the slow, and yet dangerous pulse of uremia, or by the stringy, crooked and quick pulse of septicaemia or the halting distorted pulse in a collapsing patient, with his nose immensely cold, his eyes fixed without winking and his pulse displaced from its original position. The last is called Mrutyunaadi (death pulse) in Āyurveda. See Basavarajeeya, Chap. I.

VAATA PITTA PULSE

Not only the vitiation of the Thridoshas individually, but also the vitiations of the various degrees of each Dosha and their combinations have to be studied through the pulse. A combination of Vaata and Pitta is indicated by frequent association with the movement of the serpent and of the frog with the feel of the pulse. The pulse in many cases of blood pressure may be classified as a Vaata Pitta pulse.

*Muhussarpa gatim naadeem Muhurbheka gatim tadhaa
Vaata Pitta dwayod bhutaam Pravadanti vichakshanaah
(Basavarajeeya Ch. I, Jwaranidaana).*

VAATA SLESHMA PULSE

A combination of Vaata and Kapha is indicated by the movements like those of the serpent and the peacock. The idea here is the combination of the crooked and wavy movement of the serpent and the slow and steady movement of the peacock. In a patient suffering from oedema combined with the weak action of the heart

Aortic incompetence, as indicated by the water hammer pulse it may be said to be included in Vaata Sleshma pulse. There is a peculiar fullness in the artery combined with an easy compression.

*Bhujagaadi gatim naadeem Mayuuraadi gatim tadhaa
Vaata Sleshma samudbhutam Praahur vaidya vi'saaradaah
(Basavarajeeya Chap. I, Jwara).*

PITTA SLESHMA PULSE

A combination of Pitta and Sleshma is indicated by the jumping gait of the frog and the alternative slow and steady gait of the peacock.

*Maudookaadi gatim Naadeem Mayooraadi gatim tadhaa
Pitta Sleshma Samudbhootam Praahur Vaidya Visaaradaah*

Here also may be included some types of blood pressure. Here, the condition is due to excess of Pitta and Kapha.

The pulse in blood pressure cannot be uniformly said to belong to any one type. But it may be said to be caused by a mixture of predominant Vaata and Pitta types. The pulse should in each case be studied very critically and the conclusion may depend upon the degree of vitiation of Vaata and Pitta doshaas. One case of blood pressure may indicate more of Vaata, in which case, the pulse is thready and wavy without much of the jumping and yet the blood pressure reading may be very high. In another case, the jumping may be more conspicuous. This is explained by the disturbance of the vaso motor system and the metabolic system which may be affected in different degrees.

SANNIPAATA NAADI

*Mandham mandam sidhila sidhilam Vyaakulam Vyaakkulamvaa
Sthitvaa sthitvaa vahati Dhamanee Yaati naasamchasookshma.
(Basavarajeeya Ch 1. Jwara)
Kaashta bhaarasya madhyetu Chunchoo gamanavadbhavet.
Kutilam sidhilam mandam Sookshmancha chapalam tadhaa*

Sannipaatodbhavam naadeem vijaaneeyaath Bhisagvaraih
(Lolambaraajeeyam).

Laava tithiri vartheenam Gamanam Sannipaataatah
Kadaa chinmanda gamanaa kadaa chid vega vaahinee.
(Saarangadhara 1. Ch. 3 V. 3)

Sannipaata pulse is the pulse that is felt in a patient in whom all the Thridoshaas are vitiated. This is indicated by its alternative slowness, intermittence, its crookedness and fickleness (manadam, sidhilaam, Vyaakulam and chanchalam). The pulsation of the artery appears at one time and disappears suddenly to reappear again and again. It is extremely variable and sometimes extremely subtle. The pulsation is sometimes felt higher up in the arm or it may be only just perceptible to the touch of the examining fingers. So many and so varied are the attributes of Sannipaata pulse that different authors describe it in different ways. Saarangadhara describes the movement of the Sannipaata pulse as akin to the gait of the Laavaka and Tithiri birds because the birds flutter rapidly for some time, and, all on a sudden, they stop their movements altogether, to repeat their quick movements once again.

Lolambaraaju compares the movements of the Sannipaata pulse to the movements of a mouse, which runs hither and thither in between the spaces of a bundle of fire wood, now moving forwards and now backwards disappearing at times behind the firewood and running crookedly towards this or that side, reappearing when it is not hidden by the logs of firewood. The movements of the mouse are at one time very rapid and at another time absolutely none, the mouse looking motionless and dead, so that the Sannipaata pulse is aptly compared with the gait of a mouse under those conditions.

Other authors, however, describe the Sannipaata pulse as a full and steady pulse. "Sannipaate Sthira Naadi". This is due to the fact that in some cases of typhoid fever which are of the Sannipaata type all the Thridoshaas are evenly excited and the pulse is full and fairly slow. The pulse is full owing to Kapha; it is jumping owing to Pitta predominance. Although Vaata is also deranged, its derangement is not so serious in this condition. The pulse is generally slow owing to the nature of this fever. In such a case of typhoid, in which the pulse is steady, bounding and slow (dicrotic pulse), the danger is not

very great. The prognosis may be said to be good. It is when the pulse becomes disturbed on account of predominance of Vaata vitiation and when it shows the crooked and fickle gait of a true Sannipaata condition described above, that the danger is to be expected. Therefore, mere exhibition of a steady Sannipaata pulse need not frighten the physician, who should, however, be very watchful noticing the delicate changes that take place, in the condition of Vaata from time to time.

Vaata vitiation is the most dangerous. If it is in excess it leads to fits and if it is less it may lead to collapse. Vaata is the king that leads the other two, Pitta and Kapha, either for good or bad purposes.

WHY LEFT HAND IN WOMEN ?

Why should the pulse in the right hand be tested for men and why in the left hand for women? This question was asked many centuries ago and it was answered by the author, of Yoga Ratnaakara as follows:—

Sthreenaam bhishag vaama haste Pade vame cha yatnatah
Saastrena Saampradaayena Taadhaa Swaanubhavena Vai
Pareeksha ratna vath chaasyat Abhyaa se naiva jaayete.
(Yogaratanakara V. 53).

Many explanations are given for this difference in the examination of the pulse of men and women. It is widely known that the pulse in one hand in man sometimes differs from his own pulse in his other hand. There may possibly be some difference in the pulse of men and women. It is said that the direction of nerve plexuses (Naadi Chakras) differ as between men and women. The Kurma Chakra which, lies at the navel and which influences the pulse is said to look upwards in women and in man to look downwards. This is said to account for the difference in the pulse in both sexes. As this subject belongs to Yoga Saastra into which I do not feel competent to enter, I merely accept the above authority of Yoga Ratnakara, who says that the pulse in the left hand of women is to be examined. He gives three reasons: because 1. the Saastraa (the science), 2. the

tradition, or courtesy (Saampradaaya), and 3. the personal experience of the physicians; these three say that the left hand of a woman should be selected for the purpose. If by courtesy, this has been traditionally adopted by us, I see no reason to disobey the ordinary rules of courtesy, when the contrary is not proved. This author tells us here that the testing of the pulse is like testing diamonds or precious stones, (Ratna Pareeksha), wherein the special practice of the examiner should be the best guide for acquiring knowledge. Therefore, if it has been the practice for generations to test the pulse in the right hand for men and in the left for women in India, I see no reason for giving offence to the people by disobeying the rule, even if it be only for the sake of courtesy. The author says that even with some effort (yatnatah), the left hand is to be selected for pulse examination in a woman. Symbolism exists everywhere. Why should we salute the National Flag, of a particular type? Similarly, until some one proves to me, that there is something wrong in examining the pulse of the left hand of a woman, I would like to continue the practice of doing so, as it has become a habit with me and with my patient.

WHY THREE FINGERS, NOT ONE?

The human mind is notorious for its fickleness. It is very difficult to control the mind and keep it steady. Further the mind, by its nature, can attend to only one thing at a time. But, as the attention of the mind can change in a very small fraction of a moment, from one object to another, it has become possible for us to attend to many things at the same time. It is like the moving picture in a cinema which is made up to a number of different pictures moving at a very great speed. The fast motion gives us an appearance of oneness of the picture. Similarly, although the mind pays its attention only to one subject at a time, it is found possible to educate the mind to apprehend things more quickly by various devices. Because it is difficult to study simultaneously all the 3 conditions of Vaata, Pitta and Kapha by using only one finger, it is found by practice to be easier to determine Vaata, Pitta and Kapha, by associating every one of them constantly with one only of the three fingers. Otherwise, we have to study these conditions of Vaata,

Pitta and Kapha simultaneously. Therefore, they devised, if only for the sake of simplicity, that the Vaata pulse should be studied by the touch of the tip of the index finger of the right hand of the physician, placed on the radial artery next to the root of the thumb of the right hand of the patient and that Pitta pulse should be studied by the touch of the tip of the middle finger placed next to it and that the Kapha pulse by the touch of the tip of the ring finger placed next to the middle finger on the artery.

*Agre Vaata Vahaa naadee Madhye vahati Pittala
Ante sleshma vikaarena Naadi jneya Budhai ssadha.
(Yogaratanakara V. 55).*

Other explanations are given for following this system. One is that Vaata is the leader of Pitta and Kapha and it is always forward and it should be studied first as the source of all the energy.

BEST TIME FOR EXAMINING THE PULSE

*Praatah Sleshma gatiirnaadee Madhyaahne chaasti Pittalaa
Aparaa Vaati kaajneya Punah Pitta nisaardhake.
(Basavarajeeya Ch. I).*

It was recognised in Aayurveda that the quality of the pulse differs according to the time of the day and the season. Sleshma is predominant in the morning, Pitta being predominantly active at mid-day and at mid-night and Vaata having its predominance in the afternoon or evening. The hours for Kapha predominance are from 9 to 10 a. m., for Pitta predominance 10 a. m. to 2 p. m., and Vaata predominance from 2 p. m. to 6 p. m. and similarly in the night, the Pitta pulse predominating again at midnight. Modern medicine has not found any explanation so far for this variation of the condition of the pulse, although this is recognised by every practitioner. The influence of the Sun and the Moon on plant life is well known and their influences should be much more in the case of the human beings. The influence of other planetary conditions is also recognised in Aayurveda.

MINIMUM TIME REQUIRED FOR EXAMINING THE PULSE

Vaaratrayam pareeksheta Dhrutvaa dhrutvaa vimochayet

An expert in the art of pulse reading may complete his examination in a very short time. But, a student should learn to study the pulse of every patient every morning to compare the conditions corresponding to each morning. The minimum time required for the examination of the pulse is fixed as the time that the pulse takes to beat 30 beats. In this manner 3 counts have to be taken, leaving the hand completely at ease before a second examination is undertaken. The hand of the patient should be free and slightly flexed at the forearm, so that the right hand of the patient (slightly massaged if necessary) is held lightly with the left hand of the physician, the 3 fingers of the right hand, namely, the index, middle and the ring finger of the physician gently touch the skin over the radial artery. The index finger is comfortably placed nearest the thumb and the other two fingers are placed next to it. The hand of the patient should not be extended too far nor too much flexed. Above all, it is most important that the patient should not be inconvenienced for this purpose. The time taken for testing the pulse cannot be restricted by any rules. It depends upon many conditions, including the tact and skill of the physician.

VARIATIONS IN PULSE

It must always be remembered that the pulse shows great variations according to the temperament of the patient according to the hunger, thirst, sleep, heavy meals, waking at night, leisurely sitting posture, standing posture, walking, physical exertion, exposure to direct sun, mental conditions such as sexual excitement, anger, greed, arrogance, hatred, sorrow, joy, seasons such as morning, midday and evening night and dawn, and many other environments and habits to which a human being is subjected.

For instance, there is a predominant vitiation of the Pitta type in anger, greed etc., of the Vaata type in sorrow and fear and of the Kapha type in comfort and happiness.

Kaama Krodhaat Vegavahaa Ksheenaa chintaa bhayaphuta.
(Yoga Ratnakara V. 66).

PULSE IN VARIOUS DISEASES

The condition of the pulse in various diseases is described in many text-books on pulse such as Naadi Prakaasa and Naadivignana Tantra and an elaborate study of these books was made by Dr. Ekendranaath Ghosh, M. Sc., M. D., Professor of Biology, Medical College, Calcutta and published in the Journal of Aayurveda in 1928 and 1929, but is not included in this book for reasons of space.

CHAPTER IX

MOOTRA PAREEKSHA (EXAMINATION OF URINE)

THE COLLECTION OF URINE

*Nisaantya yaame ghatika chatushatye
Uttaapya vaidyah kila roginamcha
Mootram dhrutam kaachamaye cha paatre
Sooryodaye tatsatata pareekshyam.*

(Yogaratraakara V. I. 86)

*Tassyaadyadhaaram parihritya madhya
Dhaarodbavam tatpari dhaara itva.*

(Yogaratraakara V. I. 87).

The physician should see that the patient wakes up one and a half hours before sun-rise and passes his urine in a clean glass vessel. The urine should always be tested at sun-rise.

While so collecting the urine, the first portion of the stream of the urine should be rejected and the middle portion only should be collected in the bottle for examination.

By these two precautions, any discharge coming out of the urethral canal is avoided and the deposit that collects at the bottom of the vessel may be taken as that which is sedimented from the urine coming out of the bladder. The physical examination of the

CHAPTER IX

COLOUR

urine is then conducted by noting.—1. the quantity, 2. the colour and transparency, 3. consistence, 4. odour, 5. density, 6. characters of the deposit, 7. surface tension by oil tests and 8. the chemical examination by heating, exposure to the sun and the addition of testing agents.

In all these tests, it must be remembered that our primary object is to find out the vitiation of the doshaas. We shall therefore devote our attention to the quick and ready method of investigation for noting the derangement of doshas instead of going into the detailed study of the urinary diseases.

COLOUR

*Vaayaucha paanduram Mootram rakta varnavamcha paittike
Adhavaa peeta varnam cha Kaamilaa yaam tadhaivacha
Sveta varnam kaphe chaivaDwandwa je misritam bhavet.*

(Vaidya Chintamani P. 6)

In vitiation of Vaata dosha, the urine is clear and pale, in vitiation of Pitta dosha the urine is reddish and sometimes it is yellow, so also in Kaamila (jaundice). In vitiation of Kapha dosha, the urine is foamy and sometimes white. It may be greasy and sticky, like turbid water. In vitiation of more than one dosha there may be an admixture of various colours. It is well known that acid (Pitta) urine is always darker than the alkaline urine even when they are equally concentrated. When there is an excess of blood destruction or impaired liver function, a large quantity of pigment matter appears in the urine. The urine develops a darker colour on standing owing to conversion of one pigment into another.

Normally when freshly passed, the urine is quite transparent. But, it may be opalescent from the presence of various substances in suspension including bacteria. Small quantities of blood in the urine cause the urine to look smoky.

In indigestion and in chyluria (Kapha diseases) more particularly, the urine will be like curd or kanji water and in some other cases of disturbances of digestion, the urine will be like water mixed with sandal paste. The study of the colour of the urine is a subject for great research as every slight alteration in the metabolism due to

various causes and diseases produces a change in the the colour of the urine. Colonel Donovan I. M. S., who was in the General Hospital, about 1903—1909 used to collect of samples of urine and get every one painted in its true colour for permanent record. But, his observations were not published, unfortunately. The Unani physicians even now make an expert study of urine by constant observations and practice.

QUANTITY

The quantity of urine passed by an average man per day is estimated in Aayurveda to be four anjalis, (four handfuls), with his own hands, both palms put together and expanded to the highest capacity. At the rate of 12 ozs. for an Anjali, this comes to an average of 50 ozs. per day, for an average adult.

(Charaka Saareram 7. 20).

As regards the number of times that the urine is passed it is normally estimated at 6 times per day (Shanmootram). But, there may be individual peculiarities. A person with Kapha constitution will pass more urine, with Pitta constitution less urine, and with Vaata constitution either more or less according as the Vaata is in combination with Kapha or Pitta respectively. In Sannipaata diseases the urine is very scanty and it appears at very long intervals or not all.

“Chiraaddarsana malpasah”

(Charaka Chikitscha Ch. 3. V. 107).

Generally, a healthy person does not wake up from sleep at night until early in the morning to pass urine. But, in most cases the habit varies and if a person passes one or two times more, it may be neglected. But, if it is more than that it should be considered a disease (See Prameha). Normally, the quantity of urine passed during the day is four times more than the quantity of urine passed by the same individual during the night. If the quantity of urine passed at night is more than the quantity of urine passed during the day, some abnormalities may be suspected. Increased secretion of urine usually occurs after taking food or drink and after exposure to cold (kapha)

and conversely the quantity of urine is decreased when the body is exposed to heat, when there is more sweat and the the food is less (Pitta). Urine increases in interisphal nephritis, in some forms of prameha (diabetes) and in hysteria. Urine is less in acute nephritis (pitta) in heart and liver diseases, in fevers, diarrhoea, vomiting and in cerebral irritation. Passing too much urine in fevers and in prameha are signs of bad prognosis (Basava Rajeeya Mehanidaana P. 435)

Atirakta meharoge Jvarehaaridravarvakam

Jvarevaa meha rogevaa Pyasaadhyam bahumootrakam.

(Basavarajeeya P. 435).

The urine is deep red in meharoga and it is yellow in fever. If in meha roga and in fever too much quantity of urine is passed the disease is incurable.

CONSISTENCY AND DENSITY

Normal urine is quite watery. But if the urine contains sugar, bile, or deposits or pus, it may be thicker in consistency. The density of urine is determined in Aayurveda by some oil tests (to be described below) or by gently heating the urine in a slow fire or a sand bath and by estimating the solids in the urine.

Vaata pitta kapha meha Samuttam mootra magni

Kvadhita paripaakaat Panchasapta nevaabhaaga tah

Kramaatkalka mudbhavati Chettadasaadhyam.

(Basavarajeeya P. 435).

In a person with vitiated kapha if the total solids that are in the urine exceed 11 per cent, in vitiated pitta if the total solids exceed 13 per cent and in vitiated vaata 20 per cent, the condition may be said to be incurable. The total solids in a healthy person are 4 to 5 per cent or 2 to 2½ ozs in 50 ozs of urine passed in one day (24 hours).

In modern medicine the density of the urine is estimated by the urinametre. The specific gravity of urine varies from 1,000 to 1,030.

In normal urine the specific gravity is in direct proportion to the amount of urea present. An abundant urine of low specific gravity is suggestive either of diabetes insipidus or of chronic renal disease. An abundant urine of high specific gravity is characteristic of diabetes mellitus. In the latter condition the specific gravity may reach 1075; in most cases, however, it is between 1040 and 1045. In diabetes insipidus, on the other hand, the specific gravity may fall nearly to that of distilled water. The presence of albumin in the urine does not materially affect its specific gravity.

*Yasya mootram sravetthailam Madhu madyam srave
ttadhaa yamene neeyate Seeghream karitah pasu vaatakah.*

(Basavarajeeya P. 436)

He whose urine is of the consistency of oil, honey or alcohol is likely to die soon (Basavarajeeya P. 436).

ODOUR

Any abnormal odour in the urine is due to vitiated Pitta condition. In acetonuria and in diabetes the urine has smell of fruits.

*Naanaa pushpopamo Gandho
yasya bhaati divaa nisam pushpitasyu Vanasyeva
Naanaadruma lataavatah Tamaahuh pushpitam dheerah
naram maranalakshanaih.*

(Charaka Indria Ch. 2. V. 8)

Any sweet or abnormal smell like that of flowers in the body is considered to be a symptom foreboding death.

DEPOSIT

As soon as it is passed, normal urine is clear, transparent and free from any deposit. But after some time, there may be a slight deposit of mucous, floating like a cloud in the urine. If traces of blood are present, the cloud may be of a bluish tinge; and the

phosphates, urates and free uric acid may also separate out from normal urine.

The deposit of phosphates appears in alkaline urine, and if a little dilute acetic acid is added, it dissolves. A deposit of pus is not dissolved by acetic acid. The deposit of urates appears in concentrated normal urine. But the urates generally disappear when the urine is slowly heated. Acetic acid does not dissolve the urates. But, nitric acid dissolves them with production of effervescence. The uric acid deposit may appear in acid urine in the form of crystalline granules of a darkish brown colour known as cayenne pepper deposit.

These deposits do not mean that these substances are in excess of the normal in the sample of urine. But, they only show that they are deposited owing to the altered alkaline (Kapha) or acid (Pitta) condition of the urine. It does not mean, for instance, that more phosphates are eliminated.

CHEMICAL EXAMINATION OF THE URINE

A short note on the chemical examination of the urine on modern methods is given here, as it may be of use to the Aayurvedic practitioner for ready guidance.

REACTION

The urine is usually acid but it may be normally alkaline after meals (kapha vruddhi).

ALBUMIN

Filter the urine if there is any deposit. If after filtering the urine, the urine still remains turbid, it probably contains bacteria, which should be removed by centrifugation.

Pour the urine into a clear test tube until it is about 2/3 full. Boil the top one inch or so. If the turbidity disappears add few drops of dilute acetic acid. If the turbidity disappears, it is due to phosphates. If the turbidity remains it is albumin. If the albumin is in excess, there will be a thick curdy precipitate, the amount of thickness depending upon the quantity of albumin present.

SUGAR

Glucose or grape sugar is the variety of sugar that is generally met with in abnormal urine.

FEHLING'S TEST

Take half inch of Fehling's solution No. 1 and 2, each in a test tube. Heat the mixture. A blue solution will result. If the solutions are not pure they have to be rejected. After testing the solution in this manner, add one inch of urine and heat again. If sugar is present a reddish or yellow precipitate appears at once. If the quantity of sugar is very small say under 1 per cent, a greenish deposit may appear on standing. Benedict's solution may also be used in a similar manner.

BILE IN URINE

Both bile pigment and bile acids may be present. Usually they occur together, but the pigment much more abundantly than the acids. The usual cause of the entrance of bile constituents into the urine is some obstruction in the bile passages. As long as the urine is fresh, bilirubin is the form of bile pigment always found in it. After it has stood for some time, biliverdin is apt to be formed as the result of oxidation.

Urine which contains bile is greenish or brownish yellow in colour, and somewhat more viscid than normal, so that the froth which forms on the top after shaking is unusually permanent.

Tests for bile-pigment:—Gmelin's test:—Place some of the urine in a conical glass, and run a little yellow nitric acid, containing nitrous acid, down the side so as to form a layer at the bottom. Oxidation of the bile-pigment occurs, the most highly oxidized product (choletelin) forming a yellowish-red ring nearest the acid. Above this is a reddish ring, then violet (bilicyanin) and highest of all green (biliverdin). Of these rings the green is alone characteristic of bile; all the others may be yielded by urinary indigogens.

The test as thus carried out, is not very sensitive, and may fail even when 5 per cent, of bile is present. The sensitiveness of the

reaction can be increased by filtering the urine repeatedly through an ordinary filter paper. The latter becomes impregnated with the bile-pigment, and if a drop of yellow nitric acid is placed upon it a play of colours can easily be seen.

Iodine test:—If a 10 per cent alcoholic solution of iodine is poured on the top of the urine in a test-tube, an emerald-green layer appears, where the two fluids join, if bile is present.

Tests for bile-acids:—Pettenkofer's test for bile acids is inapplicable in the case of urine, for even normal urine gives, with strong sulphuric acid, a purplish colour which might be mistaken for a positive reaction.

The simplest test is Hay's sulphur test.

Sprinkle some powdered sulphur upon the surface of the urine. If bile-salts are present it will sink; with normal urine it floats. This test depends probably upon the fact that bile salts lower the surface tension of fluids in which they are dissolved. There may be many other considerations that we do not at present realise.

PRAMEHA

According to Aayurveda, any condition in which the human urinary apparatus is not in proper working order is called Prameha. The Pramehaas are of 20 kinds. Pramehaas are due to the vitiation of the 3 doshas. (Sannipaata).

However, 10 belong to Kapha predomination and are easily cured. Six belong to Pitta predomination and are difficult to cure (Yaapya). Four belong to Vaata predomination and are nearly always incurable (Asaadhya). They are often fatal. The twenty Pramehas are not yet clearly identified and equated with specific and known diseases in modern medicine. But we may get a rough idea by using the following tentative terminology.

TEN KAPHA MEHAAS

The following ten Mehas are due to predominant Kapha vitiation.

1. *Udaka meha* (Watery meha)
2. *Ikshumeha* (Cane sugar meha)

3. *Saandra meha* (Thick meha-Pishta meha)
4. *Saandra prasaada meha* (Semi thick and clear meha Suraa meha)
5. *Sukla meha*—(White meha-Pista meha).
6. *Sukra meha*—(Sperm like meha)
7. *Seeta meha*—(Cold meha)
8. *Sihata meha*—(Sand like meha)
9. *Sanair meha*—(Slow meha)
10. *Aalaala meha*—(Saliva like meha)

Saarangadhara has Sura (wine like), Pitta (rice flour like) mehas in the place of Saandra and Saandra prasada mehas.

In these Kapha mehas, the watery portion of the body (Sareera Kledah) mixes itself with Kapha and fatty portions and then transforms itself into urine, which possesses one or more of the following ten properties of Kapha.

1. Whiteness (*Sweta*)
2. Coldness (*Seeta*)
3. Bulkiness (*Moorta*)
4. Stickiness (*Pichhila*)
5. Clearness (*Achcha*)
6. Smoothness (*Snigdha*)
7. Heaviness (*Guru*)
8. Shining (*Prasaada*)
9. Sweetness (*Madhura*)
10. Thickness (*Sandra manda*)

These properties give the Kapha varieties of Meha their respective names. These ten are curable because the treatment given through food, habits and drugs, which have properties opposite to Kapha, check the Kapha and remove the cause of the disease. (Samakriyatvaat).

Diseases of the urinary apparatus, which cause difficulty in urination, pain and deposits like gravel (amorphous or crystalline) in the urinary bladder, in the passages and in the kidneys are some of them included in meha rogas, some in mootra krichaa and some in Asmiri (Calculus) and so on.

SIX PITTA MEHAS

In mehas caused by predominance of Pitta, the urine acquires one or more of the following properties and their names are more or less derived accordingly.

1. Alkaline—(*Kshaara*)
2. Acid—(*Aamla*)
3. Saltish—(*Lavana*)
4. Pungent—(*Katuka*)
5. Bad smelling—(*Visra*)
6. Hot—(*Ushna*)

The names of six Pitta Pramehaas are :—

1. Alkaline meha—*K'shaara meha*
2. Black meha—*Kaala meha*
3. Blue meha—*Neela meha*
4. Blood red meha—(*Rakta meha*)
5. Mangistha red meha—*Mangista meha*
6. Yellow meha—*Haridra meha*

These six Pitta mehas may be relieved but not cured because the treatment given to counteract Pitta and medas, which are predominantly affected in these diseases contradict each other (Viruddha Upakramaat). For example:—Sweet and cold things counteract Pitta. But, at the same time, they increase fat and medas. Therefore, they are difficult to cure. But, they may be kept in check by cautious and prolonged treatment by proper diet, habits and drugs.

FOUR VAATA MEHAS

Food, habit and medications, which as a rule increase Vaata, when partaken in excess by a person in whom there is already Vaata predominance, vitiate Vaata and the Vaata thus vitiated combines with 1. the muscle fat (vasa), 2. bone-marrow (majja), 3. laseeka (the fluid that lies between the layers of the skin and muscles) and 4. Ojas (the final essence of human metabolism). This causes the

respective four Vaata Pramehaas. Their names are 1. Muscle fat meha (Vasa meha), 2. Marrow meha (Majja meha), 3. Elephant meha (Asthi meha), and 4. Honey meha (Madhu meha).

Because the tissues involved are more precious in Vaata Pramehaas and because the treatment indicated is contradictory and tending to increase the very cause of the disease, these four Vaata Pramehaas are considered to be incurable.

The treatment for Vaata which requires the use of oily and sweet preparations increase Vaata, Majja, Laseeka, and Ojas respectively, which are already over predominant in the respective Vaata Pramehaas.

CAUSES OF PRAMEHA

The processes of treatment and the processes of disease are therefore at cross purposes. Eating like a glutton and neglect of baths and walks drag the man into the disease, just like the tree, which is the home of birds, (Nivaasa Vriksha), attracts the birds in the evening. (Charaka Nidana Ch. 4. V. 32).

Similarly, death, in the shape of diabetes, attracts the patient who suffers from want of enthusiasm, obesity, greasiness, (oiliness) and overeating.

PREVENTION OF PRAMEHA

Food and various activities of man that are conducive to keeping up the equilibrium of the tissues save him from diabetes and give him happiness. Not all the drugs can help him.

*Yestwaahaaram Sareerasya Dhaatu Saamya Karam Narah
Sevate Vividhaaschaanyah Chestassa Sukhamasnute*

(Charaka Nidana Ch. 4. V. 54).

OIL TEST FOR URINE

Traditionally urine was tested by Aayurvedic physicians by placing a drop of oil on its surface. This simple test is very useful in order to find out the density of the urine, the presence or absence

of bile, the vitiation of Vaata, Pitta and Kapha conditions and also many other abnormal states foreboding incurability of the disease and the impending death of the patient. It is well known that the presence of bile in urine lowers the surface tension. Powdered sulphur sprinkled on the surface of urine sinks if the urine contains bile salts owing to weakening of surface tension (Hutchison-P. 322).

Unfortunately the Saampradaaya or the traditional knowledge and skill is now almost lost. I learn that in some families the physicians even today make a careful study of the urine by these oil tests.

METHOD OF EXAMINATION

The urine is collected in a porcelain or an earthenware dish. The dish is placed in a locality free from currents of air. When the surface of the urine is still, a drop of oil is placed on it with the help of a pipette or a bit of straw.

If the drop of the oil so placed quickly spreads in all directions, the disease is curable. If the drop does not spread but remains at the spot, it is difficult to cure. If the drop of oil sinks in the urine, it is incurable. This is an experiment said to have been conducted by the chemist Naagarjuna (about the 1st Century A. D.)

*Vikaasitam taila madhaasu mootre
Saadhyah sa rogaa navikaasitam chet
Syaatkasta saadhya sthalage tvasaadhyo
Naagaarjunenaiva krutaa pareeshaa.*

(Yogaratanakara—V. 90)

If the drop of the oil assumes the shape of a snake, that is, if it spreads in a leniar manner, it indicates the vitiation of Vaata dosha; if it assumes the shape of an umbrella, it indicates the vitiation of Pitta and if it takes the shape of a bead or pearl, it indicates Kapha dosha.

*Sarpaakaaram bhaved vaataat
Chatraakaaram tu Pittatah*

Muktaakaaram Balasaa

Tsyaad etan mootrasya lakshanam.

(Yogaratanakara.—V. 105)

Many other observations of the figures obtained in this manner were recorded in this book. But, we cannot understand them easily now. This requires a great research for their verifications and practice. Therefore, they have not been reproduced here. The reader is referred to Yogaratanakara and special books in the Siddha system.

CHAPTER X

MALA PAREEKSHA

EXAMINATION OF STOOLS

The examination of the stools in order to indicate the vitiation of the Thridoshaas and its importance in prognosis is included in Asthasthaana Pareeksha.

*Vaataanmale tu dhrudhata
Suskataa chapi jaayate
Peetataa jaayate Pitta chhuklataa
Sleshmato bhavet
Sannipate cha sarvaani
Lakshanaani bhavantih*

(Yogaratanakara V. 106)

In vitiation of Vaata, the stools are hard and dry. In Pitta vitiation it is yellow (foul smelling and slightly loose). In Kapha vitiation there is an admixture of all conditions. In indigestion (ajirna), the stools are not well formed. In the aama state (i. e.,) in the undigested state, there is predominance of Kapha. The healthy stools show signs of proper digestion and is well formed, Pakvam swastha malam bhaveth (Yogaratanakara V. 114).

*Koshtah Krooro Mrudur Madhyo
Madhya Syaat thai Ssamai rapi II.*

(Vaaghata I. 1-8.)

In Vaata, the stools are hard, in Pitta, they are soft and in Kapha, they are moderate. When the three doshas are in equilibrium also, the stools are moderate (i. e.), neither too hard, nor too liquid.

If there is excess of agni (digestive fire), the stools get dry (sushkam) but if the agni is slow the stools are watery.

(Yogaratanakara—V. 115.)

In digestive disorders the mala will be smelling badly; it is cold and is broken into pieces. In ascitis and diseases due to liver disorder the stools are white, ashy grey and foul smelling.

(Yogaratanakara—V. III.)

If the stools are smelling very badly and there is also a shining in the stools, it is a sign of incurability. (Yogaratanakara—V. 115)

Atikrishnam chaati subhra

Mati petam tadhaa arunam

Maranaaya malam kintu

Bhrusoshnam mrityave dhruvam (Yogaratanakara—V. 112.)

If the faecal matter is very black (kristna) or very clear (Subhra-white), very yellow (pecta) or very hot, it forebodes evil and impending death.

Kshaudra sneha mapi kshaara

Toya pooyeva maamsakrith

Naanaa varnotkatam

Pooti sakrun kaarye naasidhyati.

(Basavarajeeva-Atisaara—P. 488)

If the faecal matter is like honey, fat, alkali, water, pus or flesh, (washings) or if it is of variegated colours or if it is accompanied with putrified smell, it is incurable.

Kunapam Mastulungaabham

Sugandhi Kuddhitam bahu.

If in Atisaara (diarrhoea) the faecal matter is smelling like the dead body, if it is of the colour and consistency of the brain matter, has a good or pleasant smell instead of the normal odour of the faeces, if it is putrified and too much in quantity, it is incurable.

(Madhava Nidana, Atisara V. 16.)

CHAPTER XI

JIHVA—THE TONGUE

Aadau sarveshu rogeshu

Naadee jihva kshi mootratah

Pareekshaam karaye

Dwayidyaih paschaa drogam chikischayet

(Yogaratanakara V. 40)

In the investigation of disease by observing the Asthasthaanas (the eight sthaanas) four of them are to be observed at the beginning.

They are, first, the pulse, next the tongue, then the eyes, and then the urine. The importance of examination of the tongue comes only next to the pulse. When we speak of the examination of the tongue as one of the Asthasthaanas we are only concerned with the study of doshic conditions as indicated by the constitutional symptoms, which affect the tongue, and not with the diseases of the tongue as such.

The tongue in fact is an index of the condition of the stomach and the digestive system as also of the toxic condition of the patient. The examination of the tongue is conducted for two purposes. One is to find out the condition of the sense of taste and the other the general condition of the surface of the tongue.

The important diagnostic points to be noted according to Aayurveda will be briefly stated here.

Jihvaa seeta khara sparsaa
Sphutitaa marute adhike
Raktaa syaamaa bhavetpitte
Kaphe subhraa atipichilaa
Krishnaa sakantaka
Sushka sannipataadhike tu saa

(Yogaratanakara—V. 116)

A cold tongue with a rough surface and with fissures is due to Vaata predominance; in Pitta predominance the tongue is red and ashy (Ssyama) and in Kapha predominance, it is clear white and very sticky. In the Sannipaata condition, the tongue may be black thorny, dry and badly coated. Acute inflammation of the tongue is a sign of Pitta predominance. Small chronic ulcers are found on the tongue in indigestion, where Pitta is less and Kapha predominates.

There may be a tremor in the tongue, which is a sign of derangement of Vaata. If the dorsum of the tongue is pale, it is Kapha; red and discoloured it is Pitta. The tongue may be too dry (Vaata) or too moist (Kapha). Slight coating of fur is due to Kapha. Excessive yellow coating is due to Sannipaata. The colour of the fur (coating) therefore also indicates the Tridoshas, white (Kapha) yellow (Pitta) and Aruna (light red) the colour of the dawn (Vaata).

The papillae may be inflamed (Pitta). They may be atrophied leaving smooth bald patches (Sannipaata). The edges of the tongue may be inflamed and ulcerated and there may be areas of leukoplakia, where the whole epithelium is lost

VARIATION IN THE SENSE OF TASTE

In Vaata predominance, the taste is indefinite (sometimes sweet—Yogaratanakara V. 118) or kashaaya (astringent); in Pitta, it is bitter (sometimes pungent katu-Saarangadhara) and in Kapha, it is sweet (and sometimes saltish-Vidagdha-Saarangadhara).

In paralysis of nerves of the tongue, the taste may disappear or may be present in only some portions. We are not very much concerned with such diseases of the tongue here in Asthasthaana-pareeksha. Similarly, the tongue may be protruding to one side owing to paralysis of the motor nerves. But, to know these details

is not the purpose of Asthasthaana Pareeksha. We study here the vitiations of three doshas in particular.

The study of the taste (Rasa) of the patient's body is included in Ashtasthaana Pareeksha.

TASTES OF THE PATIENT'S BODY FOREBODING DEATH

Makshikaa schaaiva yookaa scha
Dam'sascha ma'sakaih saha
Virasaa dapasarpanti jantoh
Kaayaat mumoorshatah.

(Charaka—Indriya—Ch. 2. V. 20.)

Normally, the body of each individual has a particular taste. The investigation of the taste (rasa) includes the examination of the taste of the person's body. But as it cannot be examined directly, the following indirect methods are used.

In certain diseases, the taste of the body varies in two ways:—

1. *Virasu*—the taste that is offensive.

2. *Swaadu Rasa*—the other taste that is pleasant and attractive.

As these tastes cannot be perceived by the physician directly, they are known by the attitude of the insects like Makshika (flies), Yooka (lice), Damsha (ants) and Ma'saka (mosquitoes), towards the patient and if his taste is attractive, they infest the body of the patient, however much he may be washed and kept thoroughly clean. If any of these conditions suddenly appear (sahasa) in a person, who is already weak in strength and flesh (Balamaamsa Viheenaasya) it is a very bad sign.

CHAPTER XII

SOUND—SABDA

EXAMINATION OF VOICE—SABDA PAREEKSHA

By natural temperament (prakriti), people have their voices different from each other. Persons with Vaata temperament have their voice harsh, weak, broken, slow, indistinct and uncontinuous. (Pratata, rooksha, kshaamaa, bhinna, sakta, jarjara, swaraah—Charaka Vimana Ch. 8. V. 126). And persons with Kapha temperament have a clear and commanding voice.

Charaka says, that the human voice is different in different individuals and it sometimes naturally resembles the sound of hamsa (swan), crouncha (crane), nemi (ruddy goose), dundubhi (drum), kalavinga (sparrow), kaaka (crow), kapota (pigeon) or the sound of a rattling nature in their normal state. Sounds differing from these should be carefully studied. The voice that is not natural to a patient may resemble the bleating of a goat, or the sound may be very feeble. It may be as if it is choked. It may be inarticulate. It may appear to be sobbing, harsh, moanful, or stammering. Voices that are different from the natural voice should be noted carefully. Any sudden change of voice from the natural to unnatural or from unnatural to natural may be considered as a sign of impending danger (Abhootwotpannaan—Charaka—Indriya—1. 21) and particularly so, if the voices are multiple in the same person.

In disease, a patient with excess of Pitta may laugh and prattle; with kapha in defect, his voice may be feeble and choked and with Vaata predominance, he may be talkative.

CHAPTER XIII

SPARSA—THE SENSE OF TOUCH

The skin is the organ of touch. It is also one of the organs of elimination of waste. For this purpose, it is the biggest of all the organs of the body. It performs, in part, the functions of the lungs and kidneys. As the seat of complexion, it is the index of health and disease. It is not our purpose, here, to study all the skin diseases. But, we have to recognise through the study of the condition of the skin, the vitiation of the doshas and any impending danger.

If the skin is oily, Kapha is predominant; if dry, it shows Vaata predominance; if there is sweat in excess it is due to Pitta. If the skin is pale, it shows the deficiency of the Pitta and excess of Kapha; if black, yellow or red, it is due to Pitta. Aruna or the colour of dawn and sometimes very black colour are attributed to Vaata-Pitta predominance. In Sannipaata, all the colours are seen in various stages of evolution. Shrivelling or shrinking of the skin is due to Vaata.

Signs and symptoms, which can be detected by the sense of touch or by the observation of the complexion or of the sweating apparatus, come under the functions of the skin.

“One who is desirous of knowing the longevity of a patient by means of touch alone, should touch the body of the patient with his own hand in the normal state or should have the body of the patient touched by another whose hand is in a normal state. A physician, who palpates (touches) has to study the condition of a patient from the following details:—Charaka Indriya—Ch. 3.

1. Cessation of pulsation or movement of some parts of the body, which in normal condition should always pulsate or move, for example, the carotid arteries in the neck or the pulse at the wrist or the movement of the heart and the lungs; normal warmth of body replaced by cold; softness and tenderness becoming hard and rough; glossiness giving place to dryness; disappearance or deviation of some specific organs as testicles etc; looseness, distraction, or side-wise dislocation of joints; relaxation or stiffness of muscles, or extreme lack of proper constituents of blood (i. e., anaemia in its extreme state), or want of proper blood circulation and excessive sweating or cessation thereof. Similar symptoms other than these, if any, are also to be discerned by means of palpation. We shall refer to them briefly.

2. If the feet, legs (lower portion), thighs, buttocks, abdomen, sides of the body, back and spinal cord, hands, neck, throat, lips, and forehead perspire, become cold, stiff or rough, or show relaxation of muscles and lack of normal constituents of blood, it is to be realised that a patient with such symptoms may die ere long.

3. If the ankles, knee joints, hip joints, rectum, testicles, penis, umbilicus, shoulders, breast, wrist, ribs, jaw bones, nose, ears, eyes, brows or temples of a patient are felt by means of palpation to be very weak or distracted or dislocated, it is to be concluded that that patient may not live long.

4. So also a patient's inhalation and exhalation, neck (arteries and veins in the neck), teeth, eyelashes, eyes, hairs on the head and body, abdomen, nails, and fingers are to be examined.

5. If the breathing of a patient is either laboured or shallow;
If the carotid arteries of a patient do not pulsate;
If the teeth of a patient are abnormally dirty or too white
or have accumulated tartar;

He is doomed to meet his end ere long.

6. If the eyelashes are twisted into ropes (Jataava baddhaani)—
it is a bad sign.

VARIATIONS IN COMPLEXION

Variation of the complexion is included under the examination of the skin.

The colour of the skin naturally varies according to the race, country, caste, family, time, occupation, age and individuality of the patient. Broadly speaking the Aryan, the Negro and the Mangolian races are recognised by their Avadaata (fair), Krishna (dark) and Harita (yellow) tints of the skin respectively. Colours other than those mentioned above may be due to disease. They may be blue, blue black, copper brown, yellow, white or any colour different from these and they should be looked into at close hand. Changes of colour, that are directly due to the administration of a medicine, etc., are to be distinguished from those caused by disease, as the colours due to the medicines are liable to revert to the normal hue in due course.

(Charaka Indriya Staana—V. 11. 13.)

1. Then again, it is to be understood that the appearance of the normal colour of half of the body lengthwise, sidewise, front, and back or inside the mouth, nose, eyes, ears etc., and the assumed colour on the other half with unusual prominence is prognostic of death.

2. So also a change of colour of the face or the body may lead to death.

3. It is said by authorities that a change of colour may be due to mental depression or jubilation, or physical dryness or glossiness.

4. A physician should know that the appearance of pīplu (scar), vyanga (pigmentation), tilaka (mole), and alaka (peculiar coloured spot) on the face of a patient indicates bad prognosis.

5. The appearance of any of the unnatural colours (as described above) in the nails, eyes, face, urine, faeces, hands, feet, lips etc., in the case of an emaciated patient or a patient whose sense organs have become weak, is a sign of coming death.

6. Then again, the sudden discolouration caused in other ways than by the administration of medicine etc., on the body of a weak patient, is also an indication of approaching death.

(Charaka—Indriya—Chap. 1.)

CHAPTER XIV

DRUK—EYES

The appearance of eyes in Vaata condition is dry, smoky, fearful and moving aimlessly. There may be also burning sensation inside the eye-balls. In Pitta predomination, the patient is unable to see light; the eyes are yellow and burning. In Kapha predomination, the eyes are lustreless, watery, sticky and have the eyesight very dim.

(Yogaratanakara—V. I. Ch. I. V. 121—122.)

If one of a person's eyes is terrible looking and the other closed, it is a sign of impending death. If the eye sight is lost suddenly, or the eyes become blackish, or if one eye is red and the other black and terrific, if the patient is unconscious with eye-lids steady and eye-balls trembling, these are signs of evil consequences.

(Yogaratanakara—V. I. V. 121-126.)

Charaka in his Indriya Sthitana says:—

1. If the eye-lashes of a patient become matted.
2. If his eyes lose their normal state and become excessively protruded, sunken, squint, irregular, atonic, watery, fixed, wild, upturned, dim, lacking in power of vision at day time or at night, scintillating, or colour-blind, the normal sight being tainted by one of the colours such as black, yellow, blue, dark-brown, copper-brown, green or white, he is to be considered as one nearing the end of his life.

(Charaka Indriya Ch. 3. V. 11-12).

1. If the capacity of the sense organs of a patient is increased to an unusual extent, even when he is not engaged in intense medita-

CHAPTER XIV

DRUK—EYES

tion or Thapas, or not practising Yoga or a systematic contemplation of God, death of such a patient is fast approaching.

2. A patient who derives abnormally the Indriyarthas or the objects of senses, e.g. taste, sight, hearing, smell and touch, without the help of his sensory organs is not likely to live long.

3. Those people, either healthy or diseased, who, in a state of mental aberration, derive sensation other than that peculiar to the respective sensory organs are about to die shortly.

4. A physician who has mastered the science of Indriyas (symptoms foreboding death) as directed above, is qualified to speak of death and longevity of a patient.

(Charaka Indriya—Chap. 5—V. 24-27)

Charaka insists that a wise physician should investigate the following ten points in order to avoid all such mistakes. Here are his words :

*"Praajnaastu sarvamaajnaaya pareekshyamiha sarvadhā
Na skhaalanti prayogeshu bhesajaanaam kadaachana"*

Charaka. Vimana. Chap. 7. V. 7.

"Wise physicians, however, ascertaining everything by examination of every kind, do not trip in the administration of medicines at any time."

CHAPTER XV

AAKRITI—GENERAL CONDITION AND APPEARANCE

This is the most important item in the physical examination of the patient. Many points of very great importance may be learnt by merely looking at the patient, by studying his gait and his actions during the time of the physical examination. He must be observed when he is lying in bed, standing and walking. The general condition of his nutrition and development, his mode of dress and expression are all very important. The state of his skin, subcutaneous tissues, any abnormal growths or deformities should receive attention. The mental condition of the patient is one of the most important items which cannot be under estimated.

Charaka says that a person whose facial expression frequently shows feelings of anger, fear or joy, and of fatigue, and thirst will die becoming insane.

DASAVIDHA PAREEKSHA— TEN POINTS FOR INVESTIGATION

It often happens that even the best of physicians may be misguided and may sometimes think that a particular case is very serious by merely taking into account some symptoms, the meanings of which he may exaggerate, unless he closely examines the case in all its details. Conversely, it is possible that a particular case may look to be very serious, at first sight, but on careful examination of the details, he may find that, after all, the disease is easily curable.

IMPORTANCE OF A THOROUGH EXAMINATION

He further says :

"Without doubt, by knowing only a part, knowledge is never gained of the entire subject. Physicians erring in the knowledge of the disease (that confronts them), err in the knowledge of the treatment to be followed. When they meet with a patient, who, though afflicted by a serious disease, presents the apparent symptoms of a light disease, they take him as one in whom a particular Dosha has been excited to only a slight extent. When the time comes for administering correctives unto him, they give him mild correctives with the result that the particular Dosha reappears with force. When they meet with one who, though afflicted by a light disease, presents the apparent symptoms of a serious disease, they take him for one in whom a particular fault (Dosha) has been greatly excited. When therefore, the time comes for administering correctives unto him, they give him correctives that are powerful, with the result that, subduing to an excessive degree the particular Dosha, they weaken or waste his very constitution."

"Thinking in this way that they have, by knowing only a part, acquired a knowledge of the entire subject, they trip repeatedly. Those physicians, however, who know all that should be known, set themselves to treat a disease after examining everything in every possible way. (Accordingly) they never fail, but succeed in their treatment."

*Viditaveditavyaastu Bhishajah sarvam sarvathā
Yathāasambhavam pareekshyam pareekshya adhyava-*

*syantah na kwachidapi vipratipadyante Yathestam
artham abhinirvarthayanti cheti*

Charaka Vimaana. ch. 7. V. 4.

For example, a patient suffering from worms in the intestines may exhibit symptoms of high fever and distension of the abdomen simulating intestinal obstruction or some serious acute abdominal disease, whereas a woman suffering from puerperal septicaemia of a serious type may look very bright to all appearances and may not realise an impending death. The former is an instance of a simple disease which may be cured very easily if it is properly diagnosed that the condition is one due to worms and if proper treatment is given to expel the worms. The latter is an instance of a disease of a very serious type where even the very feeling of being happy is prognostic of impending danger. Unless the physician is wise and is also able and experienced to know these subtle delicacies and unless he is methodical in his examination of the patient, he is likely to go wrong.

In another instance, a person endowed with great mental fortitude may look thin and weak but he may be able to withstand pain and suffering of a serious character and also overcome disease by the very power of his soul force. Compare Mahatma Gandhi's condition during his last fast. (Sareerasya Tantrakam Aatmasamyogat) Charaka. Vimaana Ch. 7.

The magnitude of this mental energy is not known to the modern scientist yet. The mind becomes a powerful ruler and regulator of the body owing to its connection with the Soul. "Persons with Heena Satva (afflicted with weakmindedness) cannot bear even the slightest suffering. They cannot console themselves, nor they can be consoled by others; they may have a big body. They may even look apparently strong and muscular. Fear, grief, greed, haughtiness possess them and when they see anything that is frightful and nauseating or when they hear any unpleasant news or even at the mere sight of blood, they are greatly moved; they become pale and they sometimes faint and fall down or get excited and it is possible that they may even fall down dead." Charaka-Vimaana—Chap. 8. V. 151. This is no exaggeration.

Unless a physician makes a scientific study of all the points requiring an investigation and unless he himself knows his own capacity for such an investigation and also knows the possible methods of investigation, he is likely to go wrong. Therefore Āyurveda insists on the following ten points for investigation whose application may be greatly enlarged with the aid of modern scientific instruments and laboratory methods. Every sort of help that can be secured by a physician may be included into these ten headings. These ten points are :—

(1) Kaaranam, (2) Karanam, (3) Kaaryayoni, (4) Kaaryam, (5) Kaaryaphalam, (6) Anubandhah, (7) Desah, (8) Kaalah, (9) Pravritti, and (10) Upaayah.

(1) Kaaranam or Kartaa is that which does an act (the physician) (2) The Karanam is the instrument. It is that which constitutes the means for the actor, who sets about with a resolution to achieve the action intended i. e., the treatment. (3) Kaaryayoni is that which undergoing a modification, becomes developed into action. It is the Dhaatu vaishamyam (the derangement of the Doshas) (4) Kaaryam is that purpose for the achievement of which the actor moves. It is Dhaatu saamyam—the equilibrium of the Doshaas. (5) Kaaryaphalam is that, for the attainment of which, the accomplishment is undertaken (Sukhaavaapti—the attainment of happiness) (6) Anubandha is continuity of life—that condition of happiness or misery, resulting from the action which invariably attaches to the actor after the accomplishment of the action. (7) Desa is the place of residence and the seat of an action i. e. the patient. (8) Kala is time (in the form of season, year, including seconds, minutes etc. as also the condition of the patient with respect to age, viz infancy, youth and old age) and the day of disease. (9) Pravritti is the exertion put forth for achieving the action. (10) The Upaayah consists of facilities and proper aids available in the form of a proper physician, medicines and nurse and a curable disease for treatment and suitable environments for securing the cure. When all these conditions are available, the result will be the restoration of a long and happy life.

"Amongst these ten kinds of examinable objects the specialities of each as also the particular way in which each is to be examined are now set forth

1. KAARANAM—THE PHYSICIAN

“The physician is the cause. As regards his examination, he is a Bhishak, who applies or administers medicines for curing ailments. He should be well-versed in carrying out the sense of the aphorisms. To him life is known in all its bearings. Wishing to bring about duly a harmony of the Dhaatus (Dhaatu Saamyam), the physician should, at the outset, examine himself as regards his own qualifications comprehending the attributes of his patients or of the Dhaatus that have fallen away from a state of harmony.”

“Beholding the object or the result he is to achieve, he should consider as to whether he is able to achieve that object or result. In this connection, these are the qualifications of physicians, equipped with which a physician becomes able to bring about the harmony of Dhaatus (Dhaatu Saamyam). They are as follows:—Clear apprehension of the scripture, experience gained by actual observation of treatment; cleverness and skill; purity, both external and internal; dexterity of hand gained by practice; equipment with all the necessary appliances of treatment; possession of all the organs of knowledge and action; knowledge of the nature and capacity to deal with exigencies.”

2. KARANAM—MEDICAL TREATMENT

“Karanam (instrument) again is medicine. That is a medicine, which serves as an appliance in the hands of the physician, while endeavouring to bring about harmony of Dhaatus (Dhaatu-saamyam). It is distinguished from all those which have been included in the word Upaaya. It is of two kinds. (a) Daivavyapaasrayam, that which rests upon the grace or power of God and (b) yuktivyapaasrayam, that which rests on observation and reasoning. It should be examined according to the following methods:—Its nature is such; its attributes are such; its potency is such; it grows in such region; it grows in such a season; it has been taken up in this way; it has been kept in such a way; it has been subjected to these processes; it is fraught with such a measure; it is administered in such a disease; it is suitable to such a patient and it removes or allays such Doshas.”

3. KAARYAYONI—DERANGEMENT OR DISEASE

Kaaryayoni is the reason for our action i.e., the derangement of the Doshas. Its indication is the accession of an abnormal condition of the body or Dhaatus. Its examination consists in an observation of the symptoms that indicate an increase or decrease of the sources of disease. The examination of the abnormality also consists in an observation of such symptoms as indicate curability, mildness and virulence.

4. KAARYA—EQUILIBRIUM OF THE DOSHAS

Kaarya is the harmony of the Dhaatus (Dhaatusaamyam). Its indication is the alleviation of the Vikaara (Vikaaropasamah). Its examination consists in an observation of the following:—disappearance of the disease; the accession of voice and complexion; the growth of body; the increase of strength; a desire for the usual articles of enjoyment; liking for food at the time of eating; digestion at the proper time; accession of sleep at the proper time; disappearance of dreams due to abnormal condition; happy awaking from slumber; the free discharge of wind, urine, stool and semen; and the complete disappearance of obstruction to the free action of mind and intellect.

5. KAARYAPHALAM—RESULTING HAPPINESS

The Kaarya phalam or result of action is the attainment of happiness. Its indications are cheerfulness of mind, intellect, senses and body.

6. ANUBANDHA—CONTINUITY OF LIFE

The ‘Anubandha’ is life. Its indication is a continuity of vital breath. The physician has to estimate whether as a result of the treatment, the patient has a chance of enjoying a happy life. What is the expectation of his life?

7. DESA—HABITAT AND SEAT OF DISEASE

Desa—place of action is the country or habitat of the patient and the patient's body itself is also considered as one desa for the investigation of the physician. Amongst these, the examination of the country is for acquiring a knowledge of the habits of the patient as also for the ascertainment of drugs that grow in the locality. In this connection the following is useful for acquiring a knowledge of the patient. In what region has the patient taken his birth, or has grown, or has caught the disease? For acquisition of an accurate knowledge of the drugs, it is necessary to examine the soil. Secondly the patient is the 'Desa' or field of investigation. His examination has for its object the ascertainment of the unexhausted period of his life or the ascertainment of the measure of his strength and of the faults. This will be described in detail in Rogi Pareekshaa.

8. KAALA—CLIMATE AND PERIOD OF DISEASE

Kaala is time; it is of two kinds viz., the year and age of patient. Amongst these, the year is divided into two or three or six or twelve parts and 365 days and six periods of four hours in each day. Kaala also includes the day after the onset of the disease.

9. PRAVRITTI—COMMENCEMENT OF TREATMENT

The commencement of treatment is called Pravritti. Its characteristic is a combined action of the physician, of the patient, of medicine and of the attendant or nurse.

10. UPAAYA—THE WAYS AND MEANS

The well-fittedness and adaptation of the physician and all the rest is called Upaaya (means). Its characteristics consist in the administration of medicine, duly furnished with such causes of success as place, time, measure, assimilability and operation or virtue, as also the wealth of those attributes which have been already indicated of the physician and the rest.

In this way the ten distinct particulars that require examination should be examined one after another, before judging the success or otherwise of the medical treatment.

CONCLUSION—STUDY THE MAN AS A WHOLE

In fact, we should study the Man as a Whole.

Detailed discussion on these ten items may be enlarged into ten chapters but, for considerations of space, we have to be satisfied with mere definitions of these ten points. Further, I had great hesitation to use my own language here, for fear of introducing any inaccurate expressions. I have therefore merely extracted translations of a few passages from Charaka Samhita, as they are, but the ideas of Charaka could not be conveyed emphatically and beautifully in the English language. I wish that the readers study these books in original Sanskrit so as to grasp their whole spirit. What is to be noted here is the methodical way in which the ancient Aayurvedic physicians studied these subjects of diagnosis and treatment as a whole and not in different compartments and how they attempted to study the man as a whole not the different organs or the disease that affect them as exclusively separate entities unconnected with the man that suffers from them. Volumes have been written and they are still being enlarged by the introduction of more laboratory methods and post mortem studies but the study of the living man as such, his constitutional tendencies and his response to environments are not studied with the devotion that the subject requires. Rogipareekshaa—the examination of the patient, is treated in Aayurveda as absolutely distinct from Rogapareekshaa which means investigation of the disease. Examination of the physician here is not the one conducted by any University or other examining body but that self-examination which should be conducted by the physician on himself to understand first his own capacity to tackle a particular disease under the particular circumstances.

*"Yathaavat sarwadhaatusaamyam chikeershan
Aatmaanameva aaditah pariksheta"*

Charaka. Vimaana. Ch. 8. V. 106.

It means that the physician should first study his own capacity for undertaking the methods of treatment for bringing the Doshaas to their normal condition in each case, so that once he decides on the curability of the case and his own capacity, he may proceed with a definite plan of treatment. This, the self-examination of the physician is another new idea, at any rate, to the modern scientist.

"The need for investigation of all the ten factors is the acquirement of a thorough knowlegde of the-means and methods of cure."

Pareeksha yaastu khalu prayojanam pratipatti Jnaanam.

(Charaka, Vimaana, Chap. 8.—V. 170.)

CHAPTER XVI

EXAMINATION OF THE PATIENT

(ROGI PAREEKSHA)

Before the determination of the disease, it is very essential that the constitution of the patient (Rogi)—apart from the nature of the disease, Roga—should be studied in great detail with special regard to his physical and mental build and his environments. These have a bearing on the nature of the underlying Doshaas (toxins, etc.,) their proportion, location, on the Dhaatus (tissues etc.,) affected and so on. These again depend upon certain data, such as constitutional temperament and natural strength of the patient. These data should not be overlooked, because the dose of the therapeutic measures has to be essentially altered accordingly. For instance, two patients suffering from the same type of fever may require different doses of medicine and different therapeutic measures. If the patient is delicate and weak, he may have to be given nourishment more frequently and the medicine may have to be given in very small doses. While another patient with a big build may require full doses of medicine and he may have also to be starved instead of being nourished. This sort of discriminative knowledge arises only out careful examination of the patient from various points of view.

*Tatra taavat Iyam Bala Dosha Pramaana Jnaana Hetoh
Dosha Pramaanaanu Rupohi Bhesaja Pramaana vikalpo
Bala Pramaana Visesh aapeksho bhavati.*

(Charaka Vimaana Ch. 8: V. 115.)

The dose and strength of the medicine or other measures have to be fixed according to the measure of the Doshaas.

For instance in a case in which Kapha predominates, a strong dose of an emetic is necessary and if Vaata predominates an enema and so on. But the strength of the patient should also be carefully studied before the exact procedure is decided upon. If the patient is delicate and is of very little strength the dose should be less although the disease is virulent. All the tact and knowledge of the physician are here required. Women generally should be considered as 'heenabala' or delicate as they are generally tender-hearted, weak and dependent upon others.

TEN POINTS FOR THE STUDY OF THE PATIENT

The ten points for study are:—

1. *Prakriti*—The natural constitution, or temperament or frame of mind.
2. *Vikriti*—The abnormal or diseased condition.
3. *Saara*—The strength of the materials constituting the body.
4. *Samnanana*—The compactness of the materials.
5. *Pramaana*—Stature and dimensions.
6. *Satmya*—Compatibility idiosyncrasy or suitability.
7. *Satva*—Mental strength.
8. *Aahaarasakti*—Power of ingesting food.
9. *Vyaayaama Sakti*—Power of exertion or of withstanding obstacles.
10. *Vayas*—The age.

These ten points are described in detail as follows:—

INDIVIDUAL CONSTITUTION—PRAKRITI

Prakriti means the peculiar temperament or constitution of the individual.

The constitutions of different individuals are dependent upon heredity, profession, country, climate, age, and individual Soul-Force—*Jaati*, *Kula*, *Desa*, *Kala*, *Vayah*, *Pratyatma* *niyatha*.—These are responsible for the differentiating characteristics between man and man.

1. *Jaatiprasakta*:— That which depends upon the class to which he belongs (*Jaati* here means the class such as Braahmin Kshattriya, Vaisya or Soodra), and the Jews in Europe are an example of a *jaati* which is prone to peculiar diseases.

2. *Kulaprasakta*:— That which depends upon the *Kula* or lineage to which he belongs (Profession).

3. * *Desaanupaatinee*:— That which follows from his country or habitat.

"In what region has the patient taken his birth or has grown and has caught the disease? In that country, these are the articles of food and drink, these the sports etc. These practices are suitable to health and life, these the faults that predominate in the constitutions, these the inclinations, these the ailments of the people and these are beneficial and these are not beneficial to them."

4. † *Kaalaanupaatinee*:— That which follows from the time (yuga or season)

* *Ayam Kasmin Bhoomidese Jaatah Samvruddah; Vyaadhi Tova Etavaccha Kasminscha Bhoomidese Manushyam Idam Mahajaatam Vihaara Jaatam; Idam Aachaara Jaatam Idam Balam; Evam Vidham Satvam; Evam Vidham Saatmyam; Evam Vidho Doshobhaktireyam; Imevyaadhayah; Hitamidam; Ahitamidam; Iti Praayo Grahanena. Oushadha Parignaana Hetostu Halpeshu Bhoomi Pareeksha Vakshyati.* (Charaka Vimaana Ch. 8. V. 114).

† *Yuge yuge dharma paadah kramenaa nena viyate
Gunapaadascha bhootaanaam evam lokam praleeyate
Samvatsara sate poorne yaati samvatsarah
Dehinaamaayushah kaale yaatra yenmaana mishyate.*

Charaka—Vimaana 3. 31–321.

On the expiration of each yuga, the limit of man's life varies. In the Kaliyuga it is 100 years. Again on the expiration of each 100 years, the limit of man's life suffers a diminution by one year. Now, 4000 years of the Kali age have passed away. It is a consequence thereof, that the period of life in Kali has sustained a diminution of 40 years. Hence a man can hope to live now for 60 years; this is the average duration of life according to the Yugadharma.

5. Vayonupaatinee:— That which follows from the age of the person.

6. Pratyatmaniyata:— That which is dependent on the individual Soul-Force.

SOME FACTORS WHICH DETERMINE THE PRAKRITIS

*Sukrasonita prakritim, kaalagarbhaasaya prakritim
Maturaahara vihaara prakritim, mahaabhootavikaara
Prakritim cha garbha sareera mapekshate
Etaanihi yena doshenaadhi kenakena; anekenava; samanu
Badhyante; tena tena doshena garbho anubhadhyate;
Tatah saasaa dosha prakritiruchyate manushyaanaam
Garbhaadi pravruttau.
Tasmaad shleshmaalaah prakrityaa kechit; pittalaah kechit;
Samsrushttaah kechit, vaatalaah kechit
Samadhaatavah kechit bhavanti.*

Charaka Vimana Ch. 8. 119-121.

The nature of the vital seed of the father and blood (catamenia) of the mother, the nature dependent on the time of gestation, the nature of the mother's food and drink and sports of the mother during conception, the nature of the modification the great elements (Pancha Mahabhootaas) undergo: all these exercise an influence on the foetus. Commencing from the moment of the existence of the foetus, the Prakriti of human beings comes to be recognised, of the predominance or otherwise of a single Dosha or Doshas. For this reason some are of Vaata temperament, some are Pitta temperament, some are of Kapha temperament some are of Dwandaja and some are of Sannipaataja temperament and some others are of Sama Prakriti—even temperament.

KAPHA PRAKRITI

Sleshmaahi Snigdha, Slashna, Mroodu, Madhura, Saandra, Saara, Manda, Sthimita, Guru, Seetah, Vijjala Pichhila; Achchah.

Charaka, Vimana, 8-122

1. Kapha temperament :

People of Kapha Prakriti become possessed of strength, mildness of disposition and length of life.

In consequence of its oiliness, persons of Kapha temperament, have a body that it is oily. Their bodies are smooth in consequence of its smoothness. They have bodies agreeable to look at, delicate and clear in consequence of its mildness. They have a large measure of vital seed, indulge largely in sexual congress and they have larger number of children in consequence of its sweetness. Their bodies become compact and firm and fixed in consequence of its firmness. They have bodies with limbs fully grown and developed in consequence of its thickness. Their exertions, food, sports are always mild in consequence of its mildness. They are slow in action nor are they quickly upset or agitated in consequence of its heaviness. Their appetite, heat, thirst, heat of body, perspiration and diseases are mild in consequence of its coolness. Their bodies are smooth and their joints are strong and compact in consequence of its slipperiness. They are possessed of cheerful faces and of complexion and voice that is agreeable in consequence of its transparency.

PITTA PRAKRITI

*Pittam ushnam teekshnam, dravam visram,
Amlam, katukamcha.*

Vimaana 8. 123.

2. Pitta temperament :

People of Pitta Prakriti becomes possessed of mediocre strength, mediocre period of life and mediocre knowledge, wisdom, wealth etc.

In consequence of its heat, they become incapable of bearing heat of any kind; their bodies (mouths) are dry bodies are delicate, and void of filth; they become endowed with a very large number of freckles, dark spots on the cheeks, moles and eruptions called Pidaka; they become endowed with keenness of hunger and thirst; they soon become subject to wrinkles and grey hair, alopecia, and their faults are quickly excited. Their bodies bristle and hair becomes soft, sparse and of a tawny hue. In consequence of its liquid character their joints and flesh become loose and soft, and their

perspiration and discharge of urine and stools become copious. In consequence of its being endowed with the scent of raw meat, their breasts, armpits, mouth, head and the whole body have a foetid smell. In consequence of its pungency with sourness, their vital seed is scanty; they indulge sparingly in sexual congress and the number of children they have is small.

VAATA PRAKRITI

*Vatastu rukshah, laghuh, chalah,
Bahu seeghra, seetah, parushah, visadah.* Vimaana. 8.125.

3. Vaata temperament :

People of Vaata Prakriti become possessed of little strength, short lived, they are not able to exert much, and are of little wealth. In consequence of its dryness, they become endowed with bodies that are dry, lean, and small sized. Their voice becomes harsh, weak, broken, indistinct and not continuous. In consequence of its lightness, their motions, exertions, food and practices are light and quick. In consequence of its speed, they are hasty in their undertakings, they are soon agitated, their minds change quickly they are soon inspired with fear, they are hasty in their likes and dislikes, they have quick understanding but their memory is not tenacious. In consequence of its coolness, they are unable to bear cold, and they are exceedingly susceptible to cold, shivering and stupor. In consequence of its roughness, their hair, beard, bristles, nails, teeth, face, hands, feet and other limbs become rough. In consequence of its transparency their limbs are susceptible of bursting (cracking), their joints creak when they walk, or stand up or sit down.

SAMA PRAKRITI

*Sama—prakruti
Sarva guna samuditaastu.* Vimaana 8—127.

4. Even temperament :

Sama Prakriti or Even Temperament is that in which all the excellent qualities of the three Prakritis are put together.

The study of the Prakritis is to be conducted as stated above.

VIKRITI—DISEASE

*Vikritih Punah:—Lashana Nimittaascha,
Lakshyanimittas cha Nimittaanu Rupaacha.*

(Charaka-Indriya—1. 7.)

Vikriti means an abnormality. This is indicated by the change of complexion, voice etc. As soon as we find a change from the normal, we often try to find out the cause of the change. When we find out the cause, we may try to remove the cause or avoid further introduction of the causal factor. They have classified the factors causing the abnormality into three.

1. Lakshana Nimitta:—Those causal factors which are termed Divine—unknown.

(Hetu Bhutaani Bhavanti Daivaath-Vimaana 1. 8). These include congenital disabilities, deformities and disease

These Lakshanaas or signs are yet mostly unknown to modern medical science.

2. Lakshya Nimitta:—Those causal factors which can be identified, namely by the signs and symptoms described in the chapters on Nidaana—Diagnosis. These include all diseases acquired after birth.

3. Nimittaanurupa or Antmitta:—Those causal factors which are not supported by the signs and symptoms and are bad prognostic symptoms, which are definite indicators of impending death called Arishtas.

The causes are there, but they are hidden and are therefore not recognised by us.

Vikriti or disease is studied by investigating 1. its cause (Nidaana), 2. the vitiated nutrients—Doshas (Thri Doshas) 3. the vitiated tissues (Dushyaas) 4. the Prakriti (temperament), 5. the Desa (locality and part of the body affected) 6. Kaala (time), 7. Balavisheshah (strength of the patient and strength of the disease) 8. Linga—the signs and symptoms foreboding good or bad prognosis. Unless the physician knows how each of these eight factors are responsible for the disease individually and collectively, the seriousness or otherwise of the disease will not be known. The

diseases are thus classed into 3 clases. 1. Alpabala—of weak strength 2. Madhyabala—of middle strength and 3. Balavam—of maximum strength.

SAARA—STRENGTH OF BUILDING MATERIALS

Saara i.e., the strength of materials that build his body has been laid down as important for preventing a physician from arriving at an erroneous conclusion by merely looking at the body alone of the person. Such conclusions should never be formed i.e., that this man is endowed with strength because this man's body is large or that this person is of little strength for his body is lean. It is indeed seen that some men whose bodies are of small dimensions or whose bodies are lean are still possessed of great strength. In this connection a proof is offered by ants, bearing away large weights. Therefore, the physician should not be deceived by mere appearances. We have to note the Soul-force, vitality or nerve power if you like to call it.

Persons in whom all the saaras predominate become endowed with great strength and great honours. They can endure toil and pain in all kinds of acts, they are inspired with confidence in their own abilities; they are exceedingly attentive to every thing that is beneficial, their bodies are firm and never subject to decay, their tread and other kinds of motion are well balanced, they have a deep oily and reverberating voice. They are possessed of happiness, power, wealth, and honours. Symptoms of old age do not appear soon on their bodies, nor do these become pronounced, they are not subject to changes upon slight reasons, they are endowed with children of the same qualities. They are longlived. Those that possess the opposite of these are regarded as possessed of no Saara. Persons endowed with a predominance in middling measure of Saara have attributes in a middling measure.

EIGHT TYPES OF SAARA

The eight types of Saara relate to 1. Mind, 2. Vital seed, 3. Marrow, 4. Bone, 5. Fat, 6. Flesh, 7. Blood, and 8. Skin

In respect of worldly success and longevity of Aayu (life), men of each of the aforesaid types should be successively judged inferior to men belonging to the one preceding it in the above order of enumeration.

1. SATWA SAARA (MENTAL STRENGTH)

Persons in whom the element, Mind (Satwa Saara) predominates are possessed of happiness, power, health, wealth, honours and offspring. They are endowed with strong memory, as also with great reverence, are very grateful, are possessed of wisdom and have much cleverness and considerable patience; they fight with great prowess in battle, they are never cheerless and melancholic and are always firm; their understanding and hearts are deep and grave; they are exceedingly attentive to all beneficial things.

2. SUKRA SAARA (STRENGTH OF SEED)

Persons in whom the Sukrasaara predominates, have bodies possessed of an amiable disposition and amiable looks. Their eyes seem to be full of milk. They indulge much in sexual acts, their teeth are of an oily complexion, round, strong, equal in size, close to each other and handsome. Their complexion and voice are agreeable and oily. Their bodies are shining and their lips are large. They are fond of women and are regarded by women as dear objects of enjoyment. Besides they are endowed with great strength.

3. MAJJA SAARA (STRENGTH OF MARROW)

Persons in whom Majja (Marrow) predominates have limbs that are soft, have also great strength, oily complexion and voice and joints that are thick, long and round. They become longlived and are endowed with great strength, general and scientific knowledge riches and children. They are respected by all.

4. ASTHI SAARA (STRENGTH OF BONE)

Persons in whom bone predominates have the body, heels, ankles, knees, the portions of the arm from elbow joint to the finger's

ends, shoulder joint, chin, head, and joints and bones, nails and teeth, thicker than those of other people. They are possessed of great energy and perseverance, are addicted to acts capable of bearing pain and fatigue, and endowed with firm and compact bodies, and are also possessed with long life.

5. MEDASSAARA (STRENGTH OF MEDAS—FAT)

Persons in whom fat (Medas) element predominates have bodies of oily complexion, voice, eyes, hair, bristles, nails, teeth, lips, urine and faeces that are oily. Such predominance indicates wealth, power, happiness, enjoyment, liberality, sincerity and enjoyment of all sorts of delicacies.

6. MAAMSA SARA (STRENGTH OF MAAMSA—FLESH)

Persons in whom Maamsa saara or flesh element predominates the symptoms are these. Temples, forehead, throat, eyes, cheeks, jaws, neck, shoulders, chest, arm, pit, breasts, joints of the arms and legs, are covered with compact, heavy and agreeable looking flesh. Predominance of this element indicates the possession of forgiveness, endurance, uncovetousness, wealth, learning, happiness, sincerity, health, strength and length of life.

7. RAKTA SAARA (STRENGTH OF RAKTA—BLOOD)

Persons in whom blood (Rakta) predominates have these symptoms—their ears, eyes, mouth tongue, nose, lips, palms of the hands, soles of the feet, nails, forehead, and organs of generation are all oily, red in colour, they are of handsome make and possessed of splendour. Predominance of this element indicates possession of happiness, eminence, intelligence, strength of mind, delicacy, middling strength and incapacity to bear pain.

8. TWAK-SAARA (STRENGTH OF TWAK—SKIN)

Persons in whom the Twak saara predominates have their skin endowed with the following qualities : oiliness, smoothness, softness

agreeable colour and possession of hair that is fine, thin or scanty, deep-rooted, and delicate; their skin seems to be possessed of splendour. This indicates happiness, good luck, prosperity, diverse objects of enjoyment, understanding, learning, health, joy and longevity of life.

SAMHANANA (COMPACTNESS OF THE MATERIALS)

The words samhanana, samghaata, and samyojana are of the same import. In respect of these, that body is said to be firm or compact, which consists of symmetrical and well placed flesh and blood.

Those men who are possessed of firm and compact bodies become endowed with strength. Those men whose bodies are of an opposite kind are possessed of little strength. In consequence of bodies being of a middle character between the superior and the inferior, they become endowed with middle strength.

PRAMAANA

An intelligent physician should regard the body of a man of 25 or of a woman of 16 years of age as fully developed. The dimensions of the different limbs and the members of the body laid down below, should be understood as to have been measured by the standard of one's own Angula (finger's width—man's or woman's). And a person whose limbs and organs are found to correspond to measurements given below is sure to live to a good and hearty old age as a necessary and befitting sequel to a happy and prosperous career in life. In the case of a partial correspondence of one's limbs and organs, one should be regarded as having an average life and prosperity. A person whose limbs fall short of the below measurements should be regarded as shortlived. The legs, the arms, trunk and head are called the limbs of the body (Angaas). Their component parts are called avayavaas (the members).

The entire height of the body is 84 Angulas. According to Sushruta it is 120 Angulas.

The feet (Sushruta)	length is 14 angulas breadth 6 fingers " 14 " Circumference or Girth 14 "
The lower part of the leg from the ankle to the knee	" 18 " " 16 "
Thighs (Sushruta-waist to the knee joint)	" 18 " " 30 " " 32 " " "
Testicles	" 6 " " 8 "
Male organ	" 6 " " 5 "
Female organ	" 12 " " 12 "
Waist	Breadth is 16 angulas
Anus	10 angulas
Abdomen	" 12 " " 10 "
Flanks	" 12 " " 10 "
Space between the two breasts	" 12 " "
Breast	" 2 " " 2 "
Chest	Height 12 " " 24 "
Heart	" 3 "
Shoulder joint	Length 8 "
Shoulder	" 6 "
Upper arm	" 16 "
Palms	" 10 "
Lower arm	" 15 "
Arm pit	" 8 "
Spine (from anus to the waist)	" 12 "
Back from the waist to the lower part on the neck	" 18 "
Neck	Height 4 " Circum- ference 22 "
Face	" 12 " " 24 "
Mouth	Length 5
Chin	Breadth 4 "

Upper and lower lip	Length 4 Angulas
Ear	Height 4 "
Space between the two eyes	Length 4 "
Nose	" 4 "
Forehead	Height 4 "
Head	" 6 " Circum- ference 32 "
Toe and the next to it (3rd, 4th and small ones) diminish by 1/5 of that his middle finger.	Length 2 "
Fore-sole and sole proper	Length 4 " Breadth 4 "
Heel of the foot	" 5 " " 4 "
Entire leg	" 50 "

Nine inches by imperial measurement is equal to a Vitasti or a span which is equal to twelve Angulas according to Aayurveda. Sushruta's measurements of 120 Angulas is due to his having taken the measurements of the human being with his feet extended and hands stretched over head. This accounts for the difference of 36 Angulas or 27 inches.

EXAMINATION OF CHILDREN

There are some indications of children having long expectation of life. They are:- Hairs distinct from one another soft, sparse, oily with firm roots and dark in colour are regarded favourable; Skin tight and thick - Head, that is without defect, well formed, slightly larger than usual yet not disproportionate to the body and resembling an open umbrella is deemed favourable: A forehead that is large, compact, levelled, well knit with temporal bones equipped with three vertical lines, well developed, furnished with horizontal lines and resembles the half-moon: Ears that are thick that have their pith, large and levelled, that are equal in size, that extend downwards and bend backwards that have knit putas and large holes: Eyebrows, slightly long, having a small interval between, equal thick

and broad: Eyes that equal, with gaze directly falling on the object of which it is turned, with their sweta and krishna mandalas clearly defined, endowed with strength and brilliancy and possessed of well-formed lids and lashes and outer corners: Nose straight with nostrils wide enough for large puffs of breath with a spine that is long and with the tip slightly curved: Mouth large and straight: Tongue endowed with length and breadth, smooth, thin, and no deformity, and a pink colour: Palate smooth well developed, possessed of heat, and red in colour. Voice loud, strong, not rough and resounding, seems to rise from the depths of the body and deep: Lips neither thick, nor thin, endowed with proper breadth, cover the mouth properly, and red in colour; Cheek bones large; Neck not long: Chest broad and well developed; Shoulder joint and back-bone well covered with flesh, Breasts separated from each other by a wide space, flanks symmetrical with the shoulders and compact. Arms well rounded, developed and long. Thighs same as arms. Fingers same as arms. Hands and feet large and well developed; Nails strong, curved, glossy, coppery, elevated and convex like a tortoise shell. Navel with lines circling from left to right and edges elevated with the centre sunk. Waist, thrice the length between the navel and the chest and even not endowed with flesh. Buttocks well rounded, compact; fleshy, neither very elevated nor very depressed. Thighs gradually tapering and well developed. Calves neither fleshy nor void of flesh that end in ankles, like those of the deer, that have nerves and bones and joints well covered. Heels neither very fleshy, nor void of flesh. Feet that are convex like a tortoise shell. Flatus, urine, stool, as also sleep, waking hours, movements, smiles cries and sucking breasts that are all confirmable to Prakriti are favourable for a long life. The reverse of these are unfavourable.

SAATMYAM—COMPATIBILITY

That is called Saatmya which indulged in habitually, agrees with the constitution. Those persons with whom ghee, milk, oil, juice of flesh, and all the five tastes agree in consequence of habitual use, are endowed with strength capable of bearing hardship and are longlived.

Persons who habitually live on dry articles of food and with whom only one taste agrees, are generally seen to be endowed with little strength incapable of bearing hardship, are blessed with long life and are not capable of accomplishing much.

Those persons with whom some of the tastes agree are seen in consequence of such a characteristic to be of middling strength.

The following varieties of Saatmya are described by Charaka viz Ritu-Saatmya, Desa-Saatmya, Roga-Saatmya, and Oka-Saatmya.

1. RITU-SAATMYA

Ritu-saatmya is the adoptability of a substance with regard to the patient according to a particular season.

Sleeping in the open air in beautiful moonlight in Greeshma Ritu (summer) is an example of Ritu-saatmya. Eating sweet mangoes in summer when mango fruit is naturally plentiful is also an instance of Ritusaatmya; but eating untimely mango fruit in other seasons is not Ritu Saatmya. It is against the rule.

2. DESA-SAATMYA

Desa-saatmya is observance of certain habits peculiar to the country or climate in which the patient is living. Here it is recommended that the food (Aadyam) or the hygienic conduct (Chestitaam) should be the opposite in qualities to that indicated by the conditions of the country. Thus Kaphahara foods and physical exercise are Desa-Saatmyas in an Anupa Desa whereas midday rest, Abhyanga (massage) and Snigdha foods are the Desa Saatmya in Jan-gala Desa. As Desa means patient's body also Desa Saatmya includes Saatmya of the body as a whole or a part of it. Thus the use of Mathura rasa is a Saatmya to the whole body whereas honey is not a Sarvadhathu vardhakam, i. e., not promoter of all tissues, but only a Chakshushyam (improves eyesight).

3. ROGA-SAATMYA

Roga-Saatmya is the food or hygienic conduct which is opposite in qualities to the prevailing disease. As an example of Roga-

Saatmya it is stated that milk is Roga-Saatmya (compatible) in Gulmam (gastric trouble?). Ghee is Roga-Saatmya in Udaavartha (irregular peristalsis and distention of abdomen). Honey is Roga-Saatmya in Prameha (Urinary Diseases). This Roga-Saatmya is also called Upasaya.

4. OKA-SAATMYA

Oka Saatmya or Abhyaasa Saatmya is the individual habit. Persons addicted to various drugs and other habits are said to possess this type of Saatmya. On account of the establishment of the habit this saatmya is not harmful.

Susrata adds Jaati Saatmya, Vyaayaama Saatmya, Udaka Saatmya, Diwa Swapna-Saatmya, Rasa-Saatmya etc., to the above-mentioned Saatmyaas.

5. JAATI-SAATMYA

Jaati-Saatmya is the Saatmya pertaining to a race or species. Thus, food-grains such as rice is Jaati-saatmya to human beings while grass is Jaati-Saatmya to certain animals. Similarly meat is not Saatmya to Brahmins in Dravida Desa.

6. VYAAYAMA-SAATMYA

Vyaayaama here means exertion i. e., the three kinds of work, bodily, vocal and mental. Thus physical exertion, prolonged speech and intense mental exertion are three types of Vyaayaama-saatmyas in different persons according to their professions.

UDAKA-SAATMYA

Udakasaatmya is the saatmya (habit) relating to drinking water. Ex:—Certain persons have a habit of drinking large quantities of water and certain people have a habit of diving into the water remaining there for a long time. Such persons are said to possess the Udaka Saatmya—Aquatic habit.

8. DIVAA-SWAPNA-SAATMYATA

This is the habit of sleeping in daytime. This habit is conducive to improving the nourishment of the tissues in weak people and in others, who are prone to excess of Kapha, it increases Kapha and it may lead of obesity. In describing the properties of sleep in day time, Charaka give a beautiful example “Diwaaswapna Prasangaachcha Naro Varaaha Iva pushyati”

(Charaka. Sutra. Ch. 21. V. 34.)

“A lean person will grow plumpy like a pig by indulging in plenty of sleep. The idea here is that even Nissaara (useless) food, to which the pig is habituated, is converted into most valuable fat and flesh by plenty of sleep that it has.

This Saatmyata when indulged in judiciously is conducive to happiness only.

While Diwaswapna is generally considered not to be conducive to health in all countries, it must be remembered that in tropical climates like those of India a judicious habit of having some rest and also some sleep at midday is conducive to happiness and long life. After the advent of the western nations to India and after their gradual supremacy in all matters, the habits of the people in this country had to be changed to some extent. The change definitely had an injurious effect on the national health. The salutary rule is that it is best for all people to sleep at midday in Greeshma Ritu (hot summer). People who have to keep awake for late hours at night on account of their professional duties and who feel exhausted by physical or mental exertion or who are weak and debilitated, are also recommended to sleep in daytime irrespective of the season. The European nations who live in cold climates and whose day begins only at 9 o clock in the morning found it more convenient to have the working hours in various Government offices starting from 10 a. m. in India also. This necessitated that the people belonging to the learned professions had to give up their midday rest and to sit at their posts in the hottest hours of the day, i.e., between noon and 3 p. m. This had a debilitating effect upon the human mechanism and many of them contracted diabetes. Judicial officers commencing from the Dt. Munsiffs up to the High Court Judges, Vakils at the Bar and

many teachers also succumbed to this disease. Young students had to sit in their colleges with their stomachs full, half dozing on the benches at midday instead of having a wellneeded rest after a midday meal. When all the blood is required by the stomach, it is drawn off to their little brains, which have to be kept active, whether they like it or not at these unsuitable hours. This led to physical deterioration and they became prone to the infection of Tuberculosis and other diseases. A study of ancient customs and habits of India shows that all Government Offices were open from early morning and worked throughout the forenoon and were closed before noon for food and rest. They had then an interval of 3 to 5 hours for rest at home and they also slept for sometime at midday during the hot season. This was more conducive to the maintenance of good health. The reader will read more about the advantages and disadvantages of sleep in day time in the chapters on Swasthavritta (Hygiene). It will suffice to say here that the old Indian habit of having certain amount of rest and actual sleep, if necessary, at midday is a Saatmyaata (habit) which is conducive to preservation of health, prevention of disease and also to prolong life generally in India.

OKA SAATMYA OR ABHYAASA SAATMYA

A person who has an individual habit, Oka Saatmyata or Abhyaasasaatmyata of an injurious drug, food or conduct should give it up gradually but never suddenly. The food, drug or habit he indulges in keeps up the equilibrium of the Thri-Doshas in a person whose body is habituated to it and by suddenly cutting off the Abhyaasa Saatmyata or by introducing once a new habit in a high measure, the balance of these Thri-Doshas is so seriously disturbed as would result in untoward symptoms or disease. As such, the Oka saatmyata or Abhyaasa Saatmyata should be gradually cut off and a new one is to be carefully introduced in its stead.

*Uchitaat Ahitaat Dheemaan Kramaso Viramet narah
Hitam Kramena seveta.*

(Charaka Sutra. Ch. 7. V. 37.)

Charaka gives a practical plan in the following manner.

Days.	Old food, drug or habit to be given up.	New food, drug or habit to be practised.
1st day	Three fourths quantity is to be taken.	One fourth Quantity is to be taken.
2nd „	Indulge in the old habit fully.	Nil.
3rd „	Reduce by half	Practise half.
4th „	Do	Do
5th „	Indulge in three fourths	Practise only 1/4
6th „	Take only one fourth	Practice three fourths
7th „	Do	Do
8th „	Do	Do
9th „	Indulge in half	Practise half
10th „	Give up completely i. e. take Nil.	Practise fully
11th „	Do	Do
12th „	Do	Do
13th „	Do	Do
14th „	Indulge in one fourth	Practise three fourths

From 15th day onwards the old habit is to be completely given up i. e., should never be indulged in any measure; the new (good) habit or food or drug should be taken.

In Rogi Pareeksha the type and measure of Saatmyata should therefore, also be taken into consideration.

SATTWAM

Sattwa is otherwise called the mind. It is the ruler of the body owing to its connection with the Soul. It is of three kinds:—1. superior 2. middling 3. inferior.

1. Persons possessed of superior minds are spoken of as having mind for their essence (Sattwa-Saara). Even if they happen to have small-sized bodies, they may be seen to be unmoved in consequence of the superiority of their minds, under serious, constitutional or accidental ailments.

2. Persons with middling minds thinking of others recovering with fortitude under pain, succeed in quieting their own selves with the help of their own minds or with that of the minds of others.

3. Persons with inferior minds do not succeed in quieting their own selves by mustering mental energy through their own exertions or through encouragement offered by others. Even if they happen to possess gigantic proportions of body, they do not succeed in bearing pain that is even very slight. They are always liable to fear, grief, cupidity, heedlessness, and vanity. Hearing a discourse on anything that is awful or terrible or disagreeable or abominable or repulsive or beholding any fierce animal or a person, flesh or blood, they become subject to melancholy, or paleness of complexion, or swoons or extraordinary excitement or delusions or to falls or even to death itself.

Therefore, before the curability of the disease is determined by the physician, not only the physical conditions but also the psychological factors, which have a great influence on the vitality of the tissues, have to be studied. Susruta has classified the different types of human beings according to the disposition of their minds as follows.

Broadly speaking the classification is according to the three Gunaas viz. Sattwa, Rajas and Tamas. Persons possessing such Gunaas are respectively called Saatwikas, Raajasas and Taamasas.

I. SAATTWIKAS

The following are the illustrations of dispositions involving knowledge and desire for peace—Saatwika disposition.

(1) BRAAHMA KAAYA—BRAHMA DISPOSITION

A person endowed with Braahmakaaya or the disposition of Brahma is clean, has faith in God and other worlds, is ever intent on the possession of spiritual knowledge such as the study of the Vedas. He worships his teachers and elders, receives his guests in a cordial manner and offers sacrifices to Gods and so on.

(2) MAHENDRA KAAYA—INDRA DISPOSITION

A person endowed with this type of Sattwa or the disposition of Indra is a great and respectable man, is a hero, is of a command-

ing nature, is ever eager in the pursuit of scientific knowledge and he is a kind master, desirous of supporting a number of servants.

(3) VAARUNA KAAYA—VARUNA DISPOSITION

A person endowed with this type of Sattwa or the disposition of Varuna has the following qualities. He indulges in cold applications, he has fortitude. He possesses reddish brown eyes and tawny hair. He speaks kind and pleasing words.

(4) KOUBERA KAAYA—KUBERA DISPOSITION

A person endowed with this type of Sattwa or the disposition of Kubera possesses impartiality and fortitude. He earns and accumulates money and has a large number of children.

(5) GAANDHARVA KAAYA—GANDHARVA DISPOSITION

A person endowed with Gandharva Kaaya or the disposition of Gandharva is fond of using perfumery and fine music. He frequently engages himself in pleasant pastimes.

(6) YAAMYA KAAYA—YAMA DISPOSITION

A person endowed with this type of Sattwa or the disposition of Yama does what is right. He is steadfast in his undertakings. He is fearless, he has a good memory, is clean and devoid of (excessive) attachment, delusion, pride and hatred towards any object.

(7) RISHI SATTWA—RISHI DISPOSITION

A person endowed with Rishi Sattwa or the disposition of a saint is prone to practise meditation, austerities and Brahmacharya (self-control). He offers oblations to Gods by Homa (self-denying sacrifices), and recites Vedas. He has general, scientific as well as spiritual knowledge.

The above seven are the Saatwika dispositions.

II. RAAJASAAS

The following are illustrations of Raajasa dispositions involving intense desire and physical activity.

(8) AASURA SATTWA — DEMON DISPOSITION

A person endowed with Aasura Sattwa or the disposition of a demon is a wealthy man. He is terrific, heroic, very angry and a jealous person. He eats food alone and is a glutton.

(9) SARPA SATTWA—SNAKE DISPOSITION

A person endowed with Sarpa Sattwa or the disposition of a snake is passionate, strives to achieve his ends, is cowardly, angry, deceitful, unsteady and wavering in his pursuits and conduct.

(10) SAAKUNA KAAYA— BIRD DISPOSITION

A person endowed with a Saakuna Kaaya or the disposition of a bird is lustful, ever desirous to eat something and is unforgiving and fickle in his nature.

(11) RAKSHASA KAYA—GIANT DISPOSITION

A person endowed with Rakshasa Kaya or the disposition of a gaint, seizes and tortures a person when he is alone. He is ferocious, jealous, and devoid of righteousness. He frequently indulges in extolling his own self.

(12) PAISACHA KAYA—DEVIL DISPOSITION

A person endowed with Paisacha Sattwa or the disposition of a devil eats Uchchista (Unclean) food, is easily irritated, is angry likes to do daring acts, lustful and is lacking in modesty.

(13) PRETA SATTWA--GHOST DISPOSITION

A person endowed with Preta Sattwa or the disposition of a ghost has no discrimination, is sluggish, weeps always, is jealous and greedy, he does not give anything to others.

These six Sattwas are Rajasas.

III. TAAMASAS

The following are the illustrations of Tamasa dispositions involving ignorance and inertia.

(14) PASU KAYA--BRUTE DISPOSITION

Persons endowed with pasu kaya or the disposition of a brute are foolish, slow in action and get lustful dreams. They have a spurning or disdaining nature.

(15) MATSYA KAYA-FISH TEMPERAMENT

A person endowed with Matsya Sattwa or the fish temperament has fickleness of mind and fear. He craves for water. He always tries to quarrel and conquer his kith and kin.

(16) VANASPATYA KAYA-PLANT DISPOSITION

A person endowed with Vanaspatya Sattwa or the disposition of a plant desires to live in one place; he is always after eating something. He is devoid of Sattwa (mental strength). He does not care for the fulfilment of any of the three aspirations of life viz., Dharma, Artha and Kama.

These three sattwas are Tamasas.

Susruta classifies all these dispositions or temperaments again into those of (1) Vaata, (2) Pitta, and (3) Kapha and their combinations.

VATA TEMPERAMENT

People with Vata temperament have the qualities resembling those of a goat or a jackal, or a hare, or a mouse or a camel, or a dog, or a crow or a donkey etc.

PITTA TEMPERAMENT

People with Pitta temperament possess the qualities resembling those of a snake, or of an owl, or of a Gandharva, or of a Yaksha, or of a cat, or of a monkey, or of a tiger, or of a bear, or of a mungoose.

KAPHA TEMPERAMENT

People with kapha temperament possess the qualities resembling those of Brahma, or of Rudra, or of Indra, or of Varuna, or of a lion, or of a horse, or of an elephant, or of a cow, or of a bull, or of Garuda, or of a swan.

Thus a detailed knowledge of Sattwa is necessary as a part of the examination of the patient for purposes of Prognosis.

AAHARA SAKTI—CAPACITY FOR FOOD

A person's strength and length of life are both dependent upon food. One's capacity for food is to be ascertained from one's capacity for eating as also capacity for digestion and assimilation.

While investigating the prognosis of any case the determination of the patient's capacity for digesting the food is the most important. After all, if the patient can digest the food that he takes, his life will be prolonged. "Baladhishtanam arogyam Yadarthoyam Kriyakramah". Charaka Chi. Chap. 3. V. 142.

The physician should, therefore, study in great detail the patient's capacity for the assimilation of the food given to him. The richness of food taken by him does not count at all in this matter if it is not assimilated; for instance, when digestive fire (jatharagni) is not keen in a case of consumption, we should not give eggs although the general indication in this disease is Brimhana Chikitsa, i. e., to make the patient grow more plumpy. Any food which is not digested becomes a poison instead of being a nutriment.

"...Sa dustonnam, na tat pachati laghwapi
Apachyamanam suktatwam yati annam Vishatamapi"
Charaka Chi. Ch. 15. V.

"Hitabhir juhuyat nityam antaragnim Samahitah
Annapanasamidbhir na matrakalow Vicharayan"
Ibid Sutra. Chi. 27. V. 3 7.

The theory is that the generating station for Kapha Dhatu is Aamasaya.* It is from this place that the five other Kaphas are supplied. If Kapha is vitiated at its fountain source, the other Kaphas are, also in their turn, likely to be vitiated. Therefore in

* See Susruta, Sutra, Chap. 21. V. 10. Charaka says Uras (Sutra. Ch. 20. V-9) is the chief seat of Kapha (pradhana). Even so, the line of treatment is to bring back the deranged Kapha to the normal condition. For this purpose, our attention should be diverted to improve the Agni or the digestive fire. (Tasya, Agnideepanan Yogan.....Pibet, Charaka-Rajayakshma Chikitsa, V. 121.)

a disease like consumption where Kapha Dhatu is principally affected, I often say, that I treat consumption by treating the stomach and not the lungs. If once the assimilative power is restored and the physician succeeds in making the patient put on more weight, there is a greater chance of nature helping the patient in the matter of the ultimate cure of the disease. Even in cases where Pitta and Vata are at fault, our purpose is similarly to restore them to their normal condition by giving careful attention to them at their sources in the alimentary canal by improving the Ahara Sakti.

It is for this purpose that the minutest details of Ahara Sakti of a patient have to be studied.

9. VYAYAMA SAKTI (CAPACITY FOR EXERTION)

The three kinds of strength, superior, middling and inferior, should be judged by one's capacity for exertion (vyayama sakti) which again should be judged from one's power of action (Karma sakti).

Vyayama Sakti here does not necessarily mean the patient's athletic strength. A strong man, no doubt, has a greater chance of withstanding disease than a weaker person. The strength of a patient may determine the prognosis in many cases. However, minutest details of Vyayama Sakti or capacity for exertion have to be carefully studied in other cases where the capacity for the exertion of a patient is very low. Sometimes moving the patient from a lying posture to a sitting or standing posture or turning the patient from side to side for purposes of examination is resented by the patient. Very often the patient is right and the physician is wrong in giving more importance to the necessity of thorough physical examination at anxious times. Conversely, the capacity for exertion has to be studied also when the patient insists on exerting himself without knowing the dangers thereof and wishes to get out of bed for answering calls of nature etc. The exertion that is required for getting up from a sitting posture or for walking a little distance from the bed, may endanger a life that may be prolonged by saving the strength of the patient in these cases. All this can be judged by a careful attention to clinical symptoms at the bed side without any need for the examination of the heart of the patient by using

the stethoscope or other delicate instruments. In fact, the stethoscope cannot tell us what a keen observation can tell. I do not, however, wish to undervalue the great advantages that may be derived from a physical examination of the patient by the use of more and more delicate instruments; but I only wish to emphasise that all these examinations should only be helpful in determining the Vividha Avasthas (different degrees) of Vyayama Sakti or capacity for exertion that the patient possesses.

There are many instances in which a little over-straining while passing stools causes rupture of the tiny blood vessels in the brain (apoplexy) and consequent stroke of paralysis in ordinarily healthy looking old people.

10. VAYAS (AGE)

Age is that condition of the body which is dependent on time.

The measure of a man's life in this kali yuga is 100 years. There are men who live more than or less than 100 years. As regards the average persons, disregarding all abnormal incidents and regarding only those that are suitable to Prakriti and strength, the physician should ascertain the period of life and divide it into the three periods according to difference of duration, 1. Boyhood, 2. Manhood and 3. Decrepitude.

1. Boyhood is immaturity of the Dhatus non-appearance of hirsute (hairy) appendage, delicacy, incapacity to bear fatigue, non-development of strength and predominance of Kapha. This period continues upto 16th year.

2. Manhood is characterised by strength, development of the vital seed, manliness, prowess, apprehension, retention, recollection, speech, wisdom, and attributes of all the constituent elements attaining to evenness. It is also the period of vigour, mind being no longer restless; the period in which Pitta predominates. This period continues till the 60th year.

3. Old age— Bodily Dhatus, the senses, strength, manliness, prowess, apprehension, retention, recollection, speech and wisdom begin to decay. This continues till the 100th year or more.

The influence of age upon the good or bad prognosis is well recognised. In childhood the chances of recovery are both good as

well as bad. If the disease takes a bad turn, the child succumbs more easily than an adult. But, if the disease takes a good turn, the child recovers much more quickly than an old man. On the other hand old people easily succumb to certain diseases like pneumonia but are more prone to attacks of chronic rheumatism and also withstand the disease with tenacity. Therefore, age, which is responsible for good or bad prognosis of a disease must be considered as that condition of the body which is dependent upon the time-factor.

LIMITED AND UNLIMITED EXPECTATION OF LIFE

It is a Siddhanta of Aayurveda that the expectation of life is determined by two factors. The expectation of life is neither predetermined nor is it unalterable. If it is so what are the factors that determine the expectation of life of any living creature? This question is answered by Charaka in the following short and emphatic reply.

"Bhutaanaam Aayuh Yuktim Apekshate"

Charaka-Vimana-Ch. 3. V. 3.

The life of living creatures is determined by a combination (of two factors)

TWO FACTORS DETERMINING EXPECTATION OF LIFE— DAIVIKA KARMA AND PURUSHAKARA

According to Hindu Philosophy which is accepted by Aayurveda, the expectation of life of all living creatures is determined by the two factors viz., one, the unknown and the other, known. The unknown factor which is called Daivika karma is the resultant of the accumulated effect of processes of natural evolution taking place from the beginning of creation up to the moment of the birth of the individual creature. In one word this, the hereditary factor, is called Purva Karma. Whether it be human beings or any other living creatures, we ordinarily think, that these individuals have no control over their birth. But, Aayurveda says, that they are themselves high or low birth in particular kula or family of human or

other existence. This is so, because, for every effect or action there must be a cause. As ordinary human beings are not in a position to know the various stages through which these individual souls passed through successive stages of their evolution, we say that this is the result of their previous and unknown Karma. A Yogi, who is a sarvajna, knows all this.

“Daivamaatmakritam Vidyaat Karma Yat Pourvadaihiham”
Charaka. Vimana. Ch. 3. V. 32.

We call that action performed by an individual soul in births previous to the present existence as Daivam or Daivika Karma.

PURUSHAKARA

Purushakaara or individual Karma is the resultant of all actions performed by the individual during the present existence or this life.

“Smritah Purashakaarastu Kriyate Yadihaaparam”
Charaka. Vimana. Chap. 3.

We have stated above that the expectation of life of an individual, be it human, bovine, plant or mineral existence, depends upon combination of the two factors. viz. Daivika Karma (unknown action) and Purushakaara (the known individual action). The respective strength of those two actions, the one reacting upon the other, determines not only the expectation of life but also the happiness or misery to which the individual is subjected during that existence (Janma). This combination (Yukti) may be of three classes, viz. 1. superior, 2. middling and 3. inferior combinations. If it happens to be a superior combination which is due to favourable conditions of both Daivika Karma and Purushakaara, the resultant will be a long expectation and employment of a happy life. If the combination is of a middling nature, the resultant will be of a moderate measure, and if they are of an inferior nature the expectation of life and happiness during that life would be unfavourable.

HUMAN EFFORT ESSENTIAL

Although it is stated that whatever happens in the individual's present existence is the resultant of hereditary factors and his own actions, the individual human being is also responsible for good or bad—happy or unhappy events in this life. The results of his previous Karma undergo Vipaka i.e., get exhausted or altered by his own present Karma. He is therefore not a slave to Purva Karma. This is proved by the three Pramaanas of direct observation (Pratyaksha), inference (Anumaana) and acknowledged testimony of accepted authorities (Sabda). If the unknown factors of previous births are too strong and if the actions of the individual in this birth are weak, the resultant will be good or bad according to the unknown causes. For instance, if a man, by chance (if you like to call it), or as a result of his previous Karma, according to Aayurveda is born in a high class, intelligent family (Brahmana) or as the son of a king or a rich man, this environment helps him to give a good start in his life. But his actions in this birth are in no way responsible for this superior existence. It is, however, his own present actions that make or mar the prospects of a long and happy life. It is thus, therefore, clear that to some extent, long life and happy existence are predetermined for him. But these conditions are not unalterable.

EXPECTATION OF LIFE NOT ALTOGETHER PREDETERMINED

Although the expectation of life as we see by Pratyaksha (direct experience) to be about a hundred years in Kaliyuga this expectation may be increased or decreased by one's own effort. Taking for instance, the expectation of life of a paddy seed (Sali Dhaanya beeja) is to certain extent predetermined according to the race in which it is born. It may be of the Shastika variety whose duration of life is expected to be about sixty days or one of the Rakta 'sali varieties whose expectation may be ninety days or the Kalama varieties the duration of whose life may be 120 days or more. It is not within the domain or the capacity of the seed to alter its duration of life suddenly from 60 days to 120 days. But it is possible by efforts

made in the present generation by cross-breeding or any other method to increase or decrease the duration of life of the seeds that are produced in this generation. The Purvakarma of the seeds combined with the present karma of this generation contributes to the happy or miserable condition that may exist in the future generations.

Similarly, the expectation of life or the happiness or misery of a human being depends upon the assets that have accrued at the time of his birth and the result of his own actions in this, the present existence. Charaka gives a beautiful example to illustrate that the expectation of life is not fixed irrevocably. The axis of a cart is ordinarily expected to last a particular length of time. If proper attention is paid to keep the axle in a good condition by applying grease at proper time, by providing suitable adjustments so that the wheel may not shake too much to the right or to the left and if the cart is driven properly by a skilled driver and on good roads, the axle would last up to the proper duration of its life. If however, any of these conditions are reversed, i. e., if no grease is applied if the nails fitting the wheel in the proper position drop off, if the cart gets often upset on account of bad roads, bad driver and bad horses, the duration of life of the axle is likely to be very much shortened. Similarly, if a human being takes all necessary care about himself, he would live up to the proper expectation of life determined for him by the unknown (Divine) and hereditary agencies. Further, if he is able to take advantage of the methods of prolonging life beyond the usually expected period of life (Amitayuh) he may succeed in living beyond the usually allotted period of a hundred years for Kaliyuga. These methods include Tapas (austerities), Prasamana (peace) Brahmacharya (self-control), Dhyana (meditation) and Rasaayana Vidhaana (treatment by tonics)

*"Tapasaa Brahmacharyena Dhyaanena Praasamena cha
Rasaayana vidhaanena Kaalayuktena cha Aayushaa
Sthithaah Maharshayah Purvam.*

(Charaka-Chikitsaa, 3rd Rasaayanapaada, Chap 1. V. 5.

Even now we have instances of people who are said to have lived even two hundred years or more in the peaceful atmosphere of the Himalayas or where the Rishees perform Tapas undisturbed by modern conditions of city life. Charaka clearly says:—

*"Na hi Kinchit Rasaayanam Graamyanaam
Anyakaaryaanaam
Siddhyati Aprayatatmanaam...*

(Charaka-Chi. 3rd Rasaayana Pada—V. 5.)

To those who would not make any proper effort to secure a long life and who live an artificial life in crowded villages and cities, no Rasaayana or tonic treatment is of any use. The New Zealanders, who have opportunities of living a sturdy open air life in communion with nature undisturbed by the worry and hurry of civilised life of cities, are said to have an expectation of life of 125 years and over as a matter of course. On the other hand it is now well-known that in this holy land of Bhaarata varsha where these Rishees lived a long, undisturbed and peaceful life of hundred years or more the present average expectation of life is only about 27 years. The reasons for this unhappy state of things are not far to seek. This is evidently due to poverty, over-crowding, uncleanness, ignorance, all of which are un-Aryan and man-made (Purushakaara.)

Therefore, it becomes clear that the racial, hereditary and personal causes that are contributory to the prolongation or diminution of the expectation of life of the individual Rogi or patient have to be studied before determining whether the contributory factors are such as would promote or diminish the age limit allotted to him by virtue of his birth (Purvakarma). A knowledge of the minutest of the details included under the age-factors, is therefore necessary.

MARRIAGE

The incidence of marriage as such has an influence upon health and disease. The physician is often required to advise whether, in certain diseased conditions like syphilis, a tubercle, and heart disease marriage is to be forbidden or to be recommended. The general opinion is that marriage is a cause of weakness and that Brahmacharya (celibacy) increases strength. It should not, however, be forgotten that among Hindus marriage is considered as a state of happiness which overcomes all (many) kinds of disease.

Damayantee Uvaachaa:—

*"Na cha Bhaaryaasamam Kinchidvidyate Bhashajaam matam,
Oushadham Sarvaduukheshu Satyametat braveemi Te"*

Nala Uvaachaa:—

*“Evametadyathaaththa Twam Damayanti Sumadhyame,
Naasti Bhaaryaasamam Mitram Narasyaartasya Bheshajam”*

Damayanti said:—

“It is the considered opinion of the physicians that there is no medicine equal to the wife in all kinds of miseries. (Dukkah means Roga.)

Nala said:—

“O! Damayanti, What you say is quite true; there is no friend or medicine which is equal to the wife in relieving an afflicted person.

Mahaa Bhaarata-Aranyaparva-Chap. 62, V. 28, 22.

I have known a case in which a girl, who was treated for tubercular infection for months and who was running a temperature of 100° loved a certain person and decided to marry him even against the wishes of the doctor and the parents. The surprise is that marriage caused a definite transformation in the physical and mental condition of the patient. She began to put on weight; temperature disappeared and the girl who was 98 lbs in weight, increased up to 130 lbs. within one to two years. She, now, has a number of children and is quite happy. This is not the place to discuss, for want of space, the advantages of marriage in many other diseases. We only wish to draw the attention of the reader to the influence of marriage on disease. However, it must be said that Aayurveda considers Ahaara (food), Nidraa (sleep) and Brahmacharya (celibacy) as three auxiliary pillars of long life:

‘Thraya Upastambhaa Iti Aahaarah, Swapno, Brahmacharya-miti.

(Charaka. Sutra. Ch. 11 V. 35.)

CHAPTER XVII

ARISHTAS-SYMPTOMS FOREBODING DEATH.

The system of examination by Asthasthana Pareeksha may be taken as a “made easy” method of arriving at the speedy diagnosis and prognosis in a disease. For one who does not know the science perfectly this “made easy” method is of not much use. But, for one who has a thorough grasp of the art and science of medicine, the tips contained in this method are very useful.

The signs and symptoms called arishtaas or Indriyas are those symptoms after the appearance of which, the patient is sure to die as a consequence of that disease. Otherwise, they are not said to be considered as arishtaas. The Arishtaas are also called Indriyaas, i. e., those symptoms, which relate to (extinction of) life. One of the primary objects of Astasthaana Pareeksha is to know these symptoms which forebode death. This is a great science in itself which is dealt with in Charaka’s Indriyasthaana as one of his 8 books. It contains 12 chapters. This subject of Arishtaas requires very careful study and verification. For example Charaka says:—

*Manova haanam poornatvaat
Doshai rati balai sthribhih
Srotasaam daarunaan Swapnaam
kaale pasyati daarune.*

(Charaka—Indriya-Ch. 5—V. 41.)

1. When the Thridoshas predominate and fill the channels which carry mental processes, they cause dreams which have a very

bad prognosis (Cha. Indriya Ch. 5. V. 4). The study of the dreams, their causes and their effects in disease is a subject unknown yet to modern medicine.

2. As a rule either sudden absence of normal perceptions or the sudden appearance of extra perception i. e., super-sensitiveness, if they appear in a person who is already reduced in strength and muscle, forebode evil. (Charaka—Indriya Sthaana— Ch. 2. V.22.)

3. Unless these extraordinary super-natural powers are the result of Tapas and the regular practice of Yoga, the appearance of these powers is likely to lead to danger. (V. 24).

Antarena tapastheevram

Yogam vaa vidhi poorvakam

Indriyairadhikam pasyan

Panchaatva madhi gachhati (Ibid Ch. 4—V. 24)

If the capacity of the sense organs of a patient is increased in an unusual extent in a person who is not engaged in intense meditation or Tapas, or in practising Yoga (systematic contemplation), death of such a patient is fast approaching.

4. A patient, who derives normally the Indriyarthas or the objects of sense, e. g., taste, sight, hearing, smell and touch, without the help of his sense organs, is not likely to live long. (Ibid Ch. 4. V. 5). About 20 years ago, I saw a patient, who as a result of small pox lost both his eyes, but who developed such extraordinary powers of mathematical skill that he could mentally add, subtract multiply and divide figures which ran up to 10 or 15 digits. He could also perform many others feats of memory. He was strong and muscular and lived for atleast 10 years there after. Death is predicted only in a person who is weak in strength and in whom the symptoms appear suddenly.

5. Those people, whether healthy or diseased, who, in a state of mental aberration, derive sensation other than that peculiar to the respective sensory organ are about to die shortly. (V. 26)

INDRIYAS

Indriyas mean senses. The difference between living and non-living objects is the possession of Indriyas (senses) by the living and the non-possession of these by the dead.

“Sendriyam Chetanam Dravyam Nirindriyam Achetanam”

Charaka, Sutra, Chap 1. V. 47.

The symptoms which forebode death, i. e., loss of all functions of sense organs, in fact, all irritability which is the real sign of life, i. e., death, are called, Aristas in Aayurveda. These may be taken as nearly equivalent to terminal signs in Allopathy.

Praakruteshu Bhaaveshu Animittatah Vikritih, Ristam Taditi Lakshayet:—Vagbhata. Sareera, Ch. 5.

A separate book has been devoted to the study of this subject of Aristas in Charaka Samhita which is called Indriya Sthaana,

A physician should constantly train his mind by the examination of healthy and unhealthy people with the idea of determining the expectation of each man's life not merely for purposes of life insurance examination but also in determining the prognosis of diseases. After all, the meaning of the word Aayurveda and its scope is to know the length of life in order to protect it. It is only he who knows fully all about Aayu (the expectation of life) that can realise the full value of his studies in Aayurveda.

“ Pareekshyamaayuh Bishajaa Neerujasya Aaturasyacha, Aayurjnaanaphalam Kritsnam Aayurjne hi anuvartate ”

Charaka. Indriya. Chap 11, V. 28.

Charaka says that the following points should be noted carefully in order to estimate the expectation of a person's life.

Complexion, Voice,

Smell, Taste, Touch,

Eyes, Ears, Nose, Tongue, Skin,

Mind, Likes (and dislikes),

Purity, Conduct, Practices,

Memory,

Nature, or normal condition,

Deviation from Nature or abnormal condition,

Features or countenance,

Intellect (or the power of apprehension),

Strength, Cheerlessness, Cheerfulness, Dryness, Oiliness,

Sleep (including sloth and inactivity),
Activity (including disposition for work),
Heaviness (of the whole body or of particular limbs)
Lightness (of the whole body or of particular limbs),
Qualities of the body (such as softness or hardness, heat or cold, & etc.)

Diet (including drinks, and the likes of the patient for particular kinds of food and drink).

Sports (including all indifferent acts and practices in which the patient indulges or likes to indulge);

Development of diet (implying that into which the food and the drink of the patient is developed, that is, whether they are developed into the juice which is matured into blood and flesh or whether the result is abundance of kitta or dross);

Means (or remedies to be applied for alleviation of disease);
Alleviation or cure (of disease),
The disease (that affects the patient),
The premonitory symptoms;
The sensations (of the patient in respect of pleasure and pain);
The supervening complaints;
The aspect of the body in respect of light and shade;
The shadow (of the body on any reflecting surface or water, & etc.)

Dreams or visions of the patient;
Topics connected with the messenger commissioned to fetch the physician.

The omens observed by the physician on his way to the patient's house;

Changes in the normal condition of the relatives of the patient;
Medicines (in view of the disease);
The effects produced by the medicines administered;
Considerations about the applicability of particular medicines to the patient in view of his constitution and the disease that has affected it,

These should be examined and attended to by the physician desirous of ascertaining what the remnant is of the patient's period of life. The examination should be by the help of direct perception inference, and instructions of the wise.

Verily, amongst these objects of examination, some do not appertain to the person (the measure of whose life is to be ascertained) and some appertain to that person.

Therefore, this information should be obtained from reliable persons (Aptas). (For details see Indriya Staana of Charaka)

The following are some of the other instances of patients, whose treatment, the physician is advised to give up after witnessing the Arishta lakshanaas (evil signs and symptoms) mentioned in each case. They are not exactly the terminal signs and symptoms mentioned in text books of Modern Medicine. The symptoms may appear some days or months before the expected death. But when these symptoms are mentioned as arishta lakshanaas, the death is certain before stated time.

The disease is incurable:—

1. When a patient bleeds profusely through the rectum and is also suffering from prolonged hiccough seemingly originating from the umbilical region. (Ibid. Ch. 6. V. 7.) (Typhoid perforation?)
2. When the patient is weak and has diarrhoea, distention of abdomen and intense thirst. (Ibid-6-8-9).
3. When a patient with abdominal disease has temperature which is subnormal, urine very thick and scanty and badly constipated and is breathing very fast (V. 11.)
4. In the case of an emaciated patient or in one who is extremely weak, the discolouration of lips, feet, hands, eyes, urine, faeces or nails forebodes death.

*Oshtayoh paadayoh paanyoh Akshnoh mootra pureeshayoh
Naksheshvapicha vai varnyam Yetat ksheenabale antakru*

(Ibid—Ch. I. V. 29)

5. The wise will conjecture that the death of a patient both of whose lips have become as black as a ripe black-berry (Paakwa Jaambava Sannibhan) is certain. (Ibid—Ch. 1. V. 30). (Incompetence of the heart?)

*Yaasya neeiaa vabhaavosthau
Pakva jaambava sannibhau
Mumoorshuriti tam vidyaat
Naro dheero gataayusham.*

(Ibid—Ch. I. V. 30).

6. A patient whose tongue is fixed and immovable, whose tongue has lost the sensations of touch and taste and is also heavy and covered with thorny and fleshy papillae, whose tongue is black in colour, dry and without any secretion and swollen should, be given up. Also a patient who has no control over his tongue, which is flabby and hangs about in various directions. (Ibid Chap. 8. V. 14)

*Sthabdha Nischetanaa Gurvee
Kanta kopachita bhrusam
Syava sushka adhava
Soona pretajihva visarpinee.*

(Ibid—Ch. 8. V. 14)

7. A patient whose genital organ is very much retracted while the testicles are drooping without sufficient cause or one whose testicles are drawn in while the genital organ is very much protruded and erect, is a bad symptom. (Ibid—Ch. 7. V. 30) I saw a case of Typhoid in a boy of about 10 years whose penis was constantly erect for some days during the fever. The temperature came down to normal but the boy died suddenly, developing fits on the 60th day after the onset of fever.

8. A patient showing Pitta predomination, whose blood vessels are green and who has absolutely no sweat (Roma Koopas cha Samvratam) owing to closure of all the pores in the skin and who has a desire for sour things is not likely to live. (Ibid Ch. 9. V. 5)

9. A patient suffering from whatever disease it may be, is to be given up, if strength and muscle are continuously deteriorating in spite of all treatment.

*Achikicchyaah bhavantyete
Balamaamsa kshaye sati
Anyeshvapi vikaarēshu taan
Bhishak parivarjayat.*

(Ibid—Ch. 9. V. 9)

10. The last but not the least important of bad prognostic signs is:—

*Vijnaatam bahu'sassidhaam
Vidhivacchaava chaaritam*

*Nasidhyatyaushadham yasya
Naasthi tasya chikitchitam.*

(Ibid—Ch. 12 V. 7)

If a medicine, whose properties are well known to the physician and which in other patients produced the desired results, does not relieve the patient even to a little extent, although it is used strictly according to the directions, the patient should be given up.

There are many other Arishtaas (symptoms that forebode evil) described in the texts in connection with many diseases. I have quoted only a few of them for purposes of illustration. All these Arishtaas may not have come to the notice of a practitioner, however wide his experience may be. But, as Charaka says, every physician should carefully study these Arishtaas and be ready to understand their significance, when he happens to notice them. These represent the recorded experiences of several centuries experience of eminent physicians, whose sole guiding principle was the benefit of suffering humanity of future generations.

CHAPTER XVIII

VALUE OF MODERN SCIENCES

The study of modern sciences may have its own advantages, which are great and valuable. It is, however, not without its own disadvantages to an Aayurvedic Physician. For instance; Charaka, wants us to use the dung* of horses internally in certain diseases. (Charaka—Vimana 7. V. 30).

Although I believe that the experience recorded by him might possibly be true, I could not sometimes follow the methods recommended by him, on account of my faith being shaken by the so-called scientific or sanitary complex derived from the study of modern sciences. But, to-day when the cries about Bacteriophage and Penicillin are expounded, I feel that we have to revise our conceptions regarding the things like excreta in treatment of certain diseases.

* The dung of a horse is to be spread out on a table to dry in the sun and when it is perfectly dry, it is made into a fine powder which is soaked either in Vidanga or Triphala Kashayam 8 or 10 times (Bhaavana) drying it in the sun each time and finally the powder is dried on the big table once again and made into fine powder and preserved in a new pot carefully covered. One tola of the powder so prepared is to be given with honey in the treatment of Intestinal Parasites, in order to root out or eradicate the origin of parasites (Prakriti Vighaata treatment-Charaka-Vimana-Chap. 7. V. 30.)

CHAPTER XVIII

CONCLUSION

This want of faith in Aayurveda is, in part, due to the political conditions which help the promotion of a feeling that all that is introduced by the rulers is of the best sort, and all things belonging to the ruled are inferior.

In the interests of pure scientific research, the barriers of race and political conditions should be removed and scientists everywhere should have eagerness for service and open mind for research. This is only possible, when they are imbibed with Charaka's ideal of unqualified service to humanity and to all living creatures.

Naatmaardham Naapikaamaardham Api Bhutadayaam prati.

CONCLUSION

No doubt the Science of Medicine has made tremendous advance in the last generation in estimating the expectation of life. The study of the subjects like blood pressure, pulse irregularities, height and weights have all been put on a scientific basis. But in spite of these, I may boldly say that Aayurveda gives a more detailed information if one closely follows the text and analyses carefully all that can be inferred from these.

It is often argued by my allopathic medical friends and other people that when we have a good system of diagnosis in Western Medicine, why try and put life in the petrified bones of the Ancient Hindu Medicine which is a dead science. To them I shall reply that in the words of Sir John Woodroffe, words which he used in his reply to his friends with regard to "India is a dead country." I shall take the liberty of substituting "Indian medicine" in place of India in his reply. "Only those are dead who believe themselves to be so. Aayurveda is not dead, it is yet alive though not fully awake today. Does any one now fume against or ridicule medical systems of Greece, Egypt, Persia, or Arabia? They are left as things which are dead and gone to the scientific dissection of the cool historian. But while touching the Indian system of medicine even the scholars could not be impartial. Why? Because Aayurveda is not the mere subject of academic talk, but is a living force. It is still feared where it is not loved. Why again? Precisely because she lives, because she is still potentially powerful to impose her ideas upon the world."

PART IV

CHAPTER I

JWARA (FEVERS)

INTRODUCTION

The term Jwara means fever generally though it has a more comprehensive meaning in Ayurveda. In Allopathy fever is considered to be the result of the disturbance of the heat regulating apparatus of the body and it is taken usually as a sign of infection (Symptoms and Signs—Chamberlaine). Fever consists of increased bodily temperature, increased tissue waste, faulty secretion, increased rate of heart and pulse. The term jwara also means the same in Ayurveda when jwara is considered to affect the exterior physical body. But jwara may also affect the mind and Indriyas besides when it is characterised by mental restlessness and malfunctioning of the Indriyas.

In Ayurveda the production of heat in the body is essential finally to purusha or Atman, the subtlest dweller in the body. Narayaneyopanishad (usually referred as Mantrapushpa in worship) says that in man the lotus of the heart exists as the seat of consciousness (not the muscles of the heart but a very subtle heart embodying the mental processes) and that is called Hridaya Kamala where exists a great (subtle) fire which is also called Vaiswanara (See Bhagavadgeeta Ch. 15—14.) which is primary source of all digestive functions in the body, and which is the source of Pitta which generates heat throughout the body. Thus there is interrelationship between

the bodily heat and the source of digestion which is called Jatharagni in Aayurveda. Vaagbhata says the same thing emphatically as that there can be no heat without Pitta and that there is no fever which is not usually associated with increased heat. He states elsewhere that Atreya considers that Kayagni (heat pertaining to bodily tissues) which is the heat of all Doshas, Dhatus, Malas etc., is not different from Pachaka Pitta (alias Jatharagni). Consequently, when there is increased heat in the body known as fever, there is a loss of potency of jatharagni or digestive power to some extent. Thus the more the increase of fever, the more the loss of digestive capacity. This aspect will be considered in the Samprapti of Jirna where it will be stated that Jwara is practically the diversified or differed and misplaced Jatharagni caused by the Doshas. Jwara, thus only a symptom, is considered as a disease when it is the chief symptom affecting the man (Jeevatmah) produced by a peculiar disturbance of the Dosha Dhatu structure in the body (Dosha Dhatu Sammoorchanam).

Ooshna Pittaudrite Naasti Jwara nasti, Ooshmanna vina.
(Vaagbhata Jwara Chikitsa 16.)
Annasya Pakta Pattambhu Pachakaakya Pareritam
Dosha Dhatu malaadeenam Ooshanati Antayasaaranam.
(Vaagbhata Jwara 3—4.)

DEFINITION OF JWARA

Charaka defines Jwaras as Santapa (sensation of burning heat) pertaining to the body, or/and mind, or/and Indriyas. Susruta defines Jwara as a particular disease process characterised by obstruction of sweating, sensation of heat and a feeling as if the limbs are constricted.

SAMPRAPTI OF JWARA

Doshas are vitiated by one or more causes such as various kinds of faulty diet and improper conduct i. e., neglect or perversion of the rules of Swasthya (as laid out in Ayurveda) and when these vitiated Doshas affect the Jatharagni in Amasaya, divert the heat (pertaining to the Jatharagni) outside, the phenomena of jwara is

produced. This is the concise description of Nidana (causation or etiology) and Samprapti (mode of onset, spread and development of the Doshas in the production) of Jwara given by Susruta. Charaka's vivid description of causation and samprapti in different types will be given under different heads,

PREMONITORY SYMPTOMS OF JWARA

Exhaustion (Srama), restlessness (Arati) change of complexion (Vivannatwam), perverted taste, lacrymation, unsteady likes and dislikes for heat and cold, exposures or applications, yawning, bodily soreness, sensation of heaviness of limbs, horripilation, anoveria, feeling of darkness, lack of enthusiasm, depression of mind, chilliness. Any one or more of these symptoms may appear as prodromes of Jwara.

SPECIAL PRODROMES

It is stated that some special prodromal symptoms may appear that are indicative of the particular causative Doshas or the fevers. Thus excessive yawning as a prodrome of jwara is indicative of impending Vata-jwara. burning sensation pertaining to eyes is indicative of impending Pitta-jwara, want of appetite (even for the delicious things liked by the patient previously) is indicative of Kapha-jwara.

TYPES

There are eight kind of jwaras caused by (1) Vata, (2) Pitta, (3) Kapha, (4) Vata-pitta, (5) Vata-kapha, (6) Pitta-kapha, (7) Sannipata (Vata, Pitta and Kapha), and (8) Agantu.

CAUSES AND SYMPTOMS OF VATAJWARA

Vata Dosha is vitiated by such factors as dry (Rooksha), light as well as excessive physical exertion involving fatigue, excessive use of emetics, purgatives, enemata and errhines (Nasyakarma), suppression of natural wegas, starvation, injury, excessive indulgence in sexual intercourse, anxiety, grief, depletion of blood, waking in night time, faulty posture etc., etc.,

When such vitiated Vata enters Amasaya usually the stomach region the seat of digestion, mixes with digestive heat, proceeds to go along with the Rasadhatu which is the essence of food taken, obstructs the tiny channels (Srotases) that convey the Rasadhatu and sweat, impairs the Jatharagni, expels (partly) that heat outside from the abode of digestion and spreads into the rest of the body, it then produces the phenomenon called Vatajwara.

This type is usually characterised by any one or more of the following (characteristic of Vata) symptoms. Irregular onset and duration of fever, uneven heat in various parts of the body, variations of fever in different parts of the day, onset or marked increase of fever during the terminal period of digestion, or in the evening, or the end of the night, or during the end of summer season (advent of rainy season) rough and dusky red appearance of complexion and diminished growth of nails, eyes sunken, face ematiated, urine (scantiness), various kinds of stationary and occasionally floating pains in various parts of the body such as numbness of feet, cramps in calf muscles (Pindikoshweshthanam), breaking of the knees and other joints, pains in thighs, rending, grinding, churning (stirring), piercing pains especially in parts like loins, sides of the abdomen and thorax, back, shoulders, difficult movement of jaws, noises in ears, piercing pains in temples, astringent taste and lack of good taste in the mouth, dryness of mouth, or palate or throat, thirst, constricting sensation in the heart region, dry and scanty vomiting, by cough, suppression of belching and sneezing, aversion for even delicious articles of food, salivation, faulty digestion, depression, yawning, flexion of the body, tumours, exhaustion, vertigo, delirium, insomnia, horripilation, chattering of teeth, desire for warmth, aggravations of symptoms from Vaata exciting factors and lessening of symptoms from Vata reducing factors, such symptoms are seen in Vatajwara (any one or more of such symptoms are indicative of Vata Jwara).

CAUSES AND SYMPTOMS OF PITTA JWARA

Excessive indulgence in hot, sour, salty, caustic (Kshara), savory and indigestible articles of food, exposure to the intense sun's heat, fire or any other heat, fatigue, anger, irregular diet—such causes

aggravate Pitta Dosha in the body. When such vitiated Pitta extends into Amasaya mixes with Jatharagni, circulates with Rasa Dhatu, obstructs the tiny channels that carry the Rasa Dhatu and Sweda (sweat), vitiates the Jatharagni by its morbid fluidity and finally spreads into the whole body, it produces Pitta Jwara.

In Pitta Jwara, the advent and development of fever is sudden and it is intense; the fever is on the increase during the period of digestion, in midday or midnight or in Sarat kala (at the cessation of rainy season); Concomitant symptoms like the following may appear:—bitter taste in the mouth; inflammatory condition of nose, or mouth or throat or lips or palate, increased heat, drowsiness, vertigo, stupor, vomiting of bile, diarrhoea, aversion to take any food, debility, sweating, delirium, eruption of red spots, green or yellowish colour pertaining to nails, eyes, mouth, urine, faeces and skin, intense and increasing heat, burning sensation, desire for cold things and applications, aggravation of symptoms from Pitta producing causes and amelioration of symptoms from anti-Pitta factors—Such symptoms appear in Pitta Jwaras (Any one more of such symptoms are indicative of Pitta Jwara).

CAUSES, SIGNS AND SYMPTOMS OF KAPHA JWARA

Kapha Dosha becomes excited usually by indulging excessively in foods that are unctuous heavy, sweet, cold, sour and salty, sleep in day time, nourishment and lack of exercise. When such vitiated Kapha enters Amasaya, mixes with Jatharagni, circulates along with Rasa Dhatu, obstructs the channels that carry Rasa and Sweda, diverts the vitiated Jatharagni outside and spreads in the body, the phenomenon of Kapha jwara is produced. Kapha jwara is associated with one or more of the following symptoms. Appearance or increase of fever after food or in the morning or at the commencement of night or in spring season, heaviness of limbs aversion to any type of food, salivation, sweet taste in mouth, nausea, feeling as if heart region is anointed thickly, sensation as if the body is wrapped in a wet cloth, vomiting, poor digestion, tendency to excessive sleep, rigidity, torpor, cough, dryness, coryza, coldness, pallor of nails, eyes, mouth, urine, faeces and skin, frequent excessive appearance of cold pimples; desire for heat and

aggravation of symptoms from Kapha increasing factors and amelioration of symptoms from anti-kapha causes are measured.

(Charaka Nidana 1-22,)

DWANDWA AND SANNIPAATA TYPES OF JWARAS

Mixed types of fevers where any two or all the three doshas are mixed (in various proportions) may be produced. In these types the proportion of the Doshas constituting the fevers have to be visualised by the intensity and number of symptoms and causes which produce various symptoms and sufferings in various parts. Thus in some cases of Vata-pitta Jwara every case may present a peculiarity with a particular proportion of Vata along with particular portion of Pitta. Thus even in the same types of fevers the proportions of constituent Doshas may vary; so also the case in Sannipata fevers. In these cases, the variance of the three Doshas in different proportions lodged in different srotases make many types of variations and present innumerable types. In every case the respective proportion of Doshas has to be visualised. Such are the types of normal combinations of the Doshas which are called Prakriti Sama Samavata Dosha types of Jwaras; (i.e.) Jwaras that have mixed Doshas and these present symptoms indicative of their causative Doshas in normal combination.— Charaka No. 1-24.

VIKRITI VISHAMA SAMAVATA (DOSHAKRITA JWARAS)

Some forms of mixed types, i.e. Dwandwa and Sannipaata Jwaras (in various combinations) are produced by series of causes and these may present peculiar symptoms (which are not characteristic of causative Doshas in particular symptoms) but are resultant forms of abnormal combinations of the causative doshas. Here the causative doshas may not be easily treated from the clinical symptom picture and there may not be logical co-ordination between the symptoms and the discardable causes that have produced the diseases as given out by the patient or others. Such are the abnormal types of combinations which are called Vikriti Vishama Samaveta (Dosha-krita) Jwaras or abnormal combinations. These may also be called

specific types. There are such forms of Dwandwa Jwaras (Vikriti Vishama Samaveta Jwaras) and specific forms like Vatabalarata Jwaras Pralapaka jwaras and many forms of Sannipata Jwara (Vikriti Vishama Samaveta Jwaras) are described in various books by various authors at various times. Sandhika, Abhinyasa, Rugelaha etc., are some of such types. When investigating such cases, the series or chain of causes that have produced the types have to be ascertained to the best possible extent by the physician.

AGANTU JWARAS

The preceding types of Jwaras which are caused by one or more Doshas are also termed "Nija" diseases or diseases caused by Doshas gradually developed and vitiated in the body by various causes. In contrast to these Jwaras, there are other types of Jwaras called 'Agantu Jwaras' caused usually by external agents like trauma, poisoning and certain psychic agents like powerful spells, curses etc., brought forth by other poisons and also from strong and sudden emotions. In Nija diseases the Doshas like Vata are gradually vitiated in the body undergoing various states like Chaya, Prakopa, Prasara etc., and produce the disease while in 'Agantu Diseases' certain extrinsic agents like trauma etc., and sudden emotions like lust produce the disease rather suddenly disturbing the Dosha equilibrium at the same time. Here also Vata, Pitta and Kapha come into the picture immediately after and associate themselves with the disease process almost immediately with the cause and almost simultaneously with the advent of the disease. A few forms of Agantu Jwaras are given for illustration.

AGANTU JWARA CAUSED BY VISHA (POISON)

In fevers caused by poisoning (usually by swallowing accidentally) symptoms like blackness of mouth, diarrhoea, anorexia, thirst, intense pains, stupor etc., are usually noticed.

AGANTU JWARAS CAUSED BY LUST, ETC.,

In Agantu Jwara caused by intense lust (Kama) symptoms like mental instability, tendency to sleep, torpor, aversion to take food, indefinite pain in heart region, dryness of the body etc., may be

seen. In Agantu Jwara caused by intense fright or grief, delirium may occur. In Agantu Jwara caused by intense anger, trembling may ensue; In Agantu Jwaras caused by spells, symptoms like stupor, thirst, fear, laughing crying, tremors etc., may be produced (Susruta Ch. 31)

Generally Vayu is increased by lust or grief or fright; Pitta is increased by anger; and the three Doshas are increased by supernatural influences (Charaka Ch. 3.)

VARIOUS CLASSIFICATIONS AND SPECIFIC TYPES

There are various classifications of jwaras made from various stand points. There is every chance or better success when these various standpoints are considered and the essentials are co-ordinated to form specific lines of treatment. In any case of fever all these standpoints have to be taken into consideration in order to evaluate the Dosha set up for formulating lines of treatment, consideration of suitable diet, administration of specific medicine. Rest depends on the coordination of conclusions arrived at from the study of different standpoints.

VISHAMA JWARA

Vishama jwara means intermittent pyrexia but certain authors have included some forms of remittent fever (Santata jwara) in this heading. Five forms of Vishama Jwara are mentioned. The term Vishama jwara includes not only different forms of malaria but also fevers like septicaemia, relapsing fever etc., which have usually irregular remission of fevers. All Vishama Jwaras are usually considered as Sannipaata jwaras. The five types of Vishama jwaras are:—

1. Santata; 2. Satata; 3. Anyadushka; 4. Triteeyaka;
5. Chathurdhaka. These are described as follows:—

SANTATA JWARA

This type of fever is almost continuous fever, except for a remission for a very brief period in the course of a day. This may be known as remittent fever. In this fever the Dosha is situated (or lodged) in the Rasa Dhatu. This is also called Ekahika Jwara by

some authors. Charaka however describes a form of continuous fever termed as Santata jwara. He says that this Santata jwara is a very virulent fever which is caused by a great accumulation of morbid Doshas circulatory and carried by the Rasa Dhatu permeating the whole body. This fever is described as likely to terminate by crisis or lysis in seven or ten or twelve days according to the virulence of the Doshas in their set up and in their fever not only the three doshas but all the seven Dhatus (Rasa etc.,) and the two principal malas (Mutra and Puresha) are (vitiated) abnormal. The Santata Jwara described in Madhava Nidhana seems to be a different one, which is mild comparatively to the one described by Charaka and this form is said to lodge in Rasa Dhatu.

SATATA JWARA

This is the double quotation fever. It has remission in two different lines to the course of a day. Here, the Doshas are said to lodge in Rakta Dhatu.

ANYADUSHKA JWARA

This occurs as a particular period once in a day. The Doshas are lodged in Mamsa Dhatu. This is also called Dwayahika jwara.

TRITEEYAKA JWARA

This fever appears on alternate days at a particular period. Here the Doshas are said to be lodged in Medodhatu. This is also called Triyatika jwara.

CHATHURDHAKA JWARA

This is quartan fever; Doshas are lodged in Asthi and Majja Dhatu in this type. It is also called Chathurdhika jwara.

VATABALASAKA JWARA

This peculiar type is described as consisting of mild (Manda) recurring for hectic fever; dryness of limbs and of other discharges (fever) constriction of limbs and oedema (or inflammation of any part of the body) along with increase of Kapha in the body (Nityane Manda Jwara-Rukshate.)

PRALAPAKA JWARA

This type is described as one where a sensation is felt as if it all the limbs are anointed with sweat and the fever is constant though mild. This is usually associated with consumption (Kshaya.)

SOME SPECIFIC TYPES DESCRIBED BY BASAVARAJU

Basavaraju, an Andhra physician (probably 17th century) described some specific types of fevers that came in his observation. A few are given here:—

SPECIFIC SANNIPATA JWARAS

Thirteen types of specific Sannipata jwaras are given by Basavaraju (These are different from the thirteen types mentioned by Charaka). These were made on particular Dosha set-ups as fell under his observation. These are Sandhika, Tandrika Chittavibhrama, Kanthakubja, Karnika, Jihwaka, Rugdhaha, Antaka Bhugnanetra, Rakta Shtheevi, Pralapa, Seetanga, and Abhinyasa.

1. SANDHIKA JWARA

Inflammation of limbs, general symptoms pertaining to Vata and Kapha, sleepiness (in day time), various kinds of pains, insomnia, (at night) debility along with fever. These characterise Sandhika Sannipata which may terminate in crisis or lysis in seven days.

2. TANDRIKA

Sleepiness (Tandra), indefinite pain, power, presence of Kapha in the throat, thirst, vomiting, pain in throat, hoarseness of voice, lack of appetite, dyspnoea with spitting of sputum:—These symptoms are seen in Tandrika Sannipata, which terminate by crisis or lysis in twenty days.

3. CHITTAVIBHRAMA

Delirium, posing of hands as if in a dance, laughing, frequent rubbing of nose, stupor, vertigo, position of limbs in an unnatural manner, anger, singing—these symptoms constitute Chittavibhrama Sannipata, which may terminate by crisis or lysis in twentyone days.

4. KANTHAKUBJA

Pain in jaws, throat and head, delusions, trembling, fever, symptoms of vayu stupor, burning sensation, delirium, retraction of head and neck backwards. These symptoms are found in Kanthakubja Sannipata jwara which may terminate in thirteen days.

5. KARNIKA SANNIPATA

Intense fever, pain in ears, parotitis, anger, delirium, dyspnoea, cough, salivation—these are seen in Karnika Sannipata which may drag on even for months and eventually end fatally.

6. JIHWAKA SANNIPATA

Dyspnoea, cough, burning sensation, vacant look and closing the eyes occasionally, mouthful of phlegm, heavy breathing, slight deafness, inability to speak, these denote Jihwaka Sannipata which usually proves fatal by crisis in 16 days or by lysis.

7. RUGDAHA SANNIPATA

Inflammatory condition of any part of the body, delirium, stupor, poor digestive power, exhaustion, thirst, vertigo, dyspnoea, indefinite pain, rigidity and pain in throat and neck—these constitute Rugdam which is also very difficult to cure and which may terminate in twenty days by crisis.

8. ANTAKA SANNIPATA

Burning sensation inside, trembling of head, hiccough, weeping delusions—these characterise Antak which usually proves fatal inspite of best treatment and which may terminate by crisis or end gradually by lysis.

9. BHUGNANETRA SANNIPATA

Impaired vision, deafness, delirium, dyspnoea, delusions, dryness of throat—these are seen in Bhugnanetra Sannipata which generally proves fatal by crisis in 8 days or by lysis.

10. RAKTHASHTEEVI

Hematamasis, vertigo, dyspnoea, lack of comprehension (i. e., presence of mind), lympanitis, hiccough, red erythema cyanosis—these constitute Raktashteevi Sannipata which may end in crisis in 10 days.

11. PRALAPA

Tremor, pain, forgetfulness, deformity in limbs, incoherent speech, crying, rashes on the body—these are some of the symptoms of Pralapa jwara. It has a bad prognosis.

12. SEETANGA SANNIPATA

Much burning sensation internally, and exhaustion but coldness of the body, vomitings, diarrhoea, depressed state of mind, trembling, vertigo, dyspnoea—these symptoms and especially extreme coldness of the body characterise this type. This may end in crisis in 15 days.

13. ABHINYASA

Much burning sensation in palms and soles, and lack of comprehension—these characterise Abhinyasa, which may terminate in 16 days by crisis. This type of Abhinyasa is different from its namesake described in older books like Charaka. It may be known that some of the diseases change their manifestation of symptoms.

The different seat of symptoms and Dosha structure are described differently in different lines by various authors.

CERTAIN PECULIAR TYPES OF FEVERISH HEAT IN JWARAS

Some peculiar types of heat manifestation in the body are described. In certain cases heat is seen in one half of body while colour is observed in other half, or heat may be seen in upper half

of the body and colour observed in the lower half or vice versa. Such states are described as found when Ahara Rasa, Kapha and Pitta are vitiated and affect the different halves of body. If Pitta is vitiated initially and is followed by Kapha (i. e. when Kapha vitiation takes place later) the body is found hot along with coldness of extensions. If, on other hand, Kapha is initially, vitiated followed by vitiated Pitta the trunk feels cold while the extremities are hot to touch.

SEETAPOORVA JWARA AND DAHAPOORVA JWARA

When vitiated Kapha and Vata are situated in Twak (region of skin) they produce chill initially before the advent of fever. When these two Doshas subside, Pitta comes in and produces burning sensation. This is what is called Seeta Poorva Jwara. Here, there is sensation of coldness and shivering and it is followed by fever. In contrast to this, there is a syndrome known as Daha Poorva jwara, when Daha or burning sensation first occurs and it is followed by chill. Here Pitta is vitiated initially and it is followed by Vata and Kapha. Both types of fevers are produced by the three Doshas, but Dahapoorva jwara is more difficult to cure.

JWARAS LODGED IN DHATUS

In cases of prolonged or relapsing fever, the Doshas are said to lodge, so to say, in the Dhatus like Rakta, Mamsa etc., and when they come out into Koshta and affect the Jatharagni, they produce the increase or rise of fever. This standpoint also is to be ascertained from the symptoms present, as some different lines of treatment like Seerakarma, Sweda Karma, Vastikarma, have to be formulated before any Sodhanakarma is indicated (Sodhanakarma is usually indicated when Doshas are lodged in Koshta and not in Dhatus, technically called Sakhas). In Vishama jwaras generally the Doshas are in various Dhatus. For instance, Santata jwara is lodged in Rasa Dhatu and Santata jwara is usually lodged in Rakta Dhatu, Similarly, Anyudushka jwara is lodged in Mamsa Dhatu; Tritteeyaka jwara is lodged in Medodhatu; and Chaturdhaka jwara is usually lodged in Asthi or Majja. Here, it may be noted that a simple Santata jwara has got the Doshas lodged in Rasadhatu, but Charaka described a form of Santata jwara, when the Doshas are lodged in

seven dhatus and the three doshas and Malas of Mootra and Pureesha are affected. Thus, in Santata jwara described by Charaka twelve structures viz, the three Doshas, seven dhatus and two principal malas are affected. Similarly any prolonged fever may have its doshas lodged in certain dhatus. As indications then state certain symptoms are given.

SYMPTOMS OF JWARAS LODGED IN RASA DHATU

Heaviness, nausea debility, vomiting, anorexia, depression—such symptoms are produced when doshas (causing the fever) are lodged in Rasa Dhatu.

SYMPTOMS OF JWARAS LODGED IN RAKTA DHATU

Spitting of blood, burning sensation, stupefaction vomiting, giddiness, delirium, red rashes, thirst—such are the symptoms produced when the Doshas are lodged in Rakta Dhatu.

SYMPTOMS OF JWARAS LODGED IN MAMSA DHATU

Cramps in calves, thirst, looseness of bowels, profuse urine, much external heat, internal burning sensation, tremors of hand and feet, exhaustion—such are the symptoms when jwara is lodged in Mamsa Dhatu.

SYMPTOMS OF JWARAS LODGED IN MEDO DHATU

Profuse sweating, thirst, stupor, delirium, vomiting, fetor, anorexia, exhaustion extreme sensitiveness—such are the symptoms produced when jwara is lodged in Medas.

SYMPTOMS OF JWARA LODGED IN ASTHI DHATU

Sensation of breaking pains in bones, mourning, dyspnoea, diarrhoea, vomiting, convulsions of limbs—such are the symptoms produced when jwara is lodged in Asthi Dhatu.

SYMPTOMS OF JWARA LODGED IN MAJJA DHATU

Feeling of entering into greater darkness, hiccough, cough, chilliness, vomiting, internal burning sensation, great dyspnoea, feeling vital parts are rent assunder. Such are the symptoms produced when jwara is lodged in Majja Dhatu.

SYMPTOMS OF JWARA LODGED IN SUKRA DHATU

When jwara is lodged in Sukra Dhatu, rigidity of penis, profuse seminal discharge ultimately resulting in death. In continuous fevers with prolonged duration, the need of knowing particular Dhatu or Dhatus affected is also to be known. This also gives some clues for certain principal lines of treatment as well as some prognostic hints. Jwaras lodged in Rasa and Rakta are curable, jwaras lodged in Mamsa, or Medhas, Asthi are curable with some difficulty while some jwaras lodged in majja and Sukra Dhatus are considered as incurable.

PRAKRITA AND VIKRITA JWARAS

The standpoint arises from aspect of seasonal influences on human mechanism during affections of prolonged fever. Prakrita jwara means the fever which is caused by the Doshas which is generally aggravated in the particular season or Ritu. Vata is aggravated in Varsha Ritu (Rainy Season). Pitta is aggravated in Sarad Ritu (period after cessation of rains and predominance of sun's heat) prevails and Kapha is aggravated in Vasanta Ritu (Spring). Hence Vata jwara or any jwara with predominance of Vata Dosha is considered as prakrita jwara during that season; and Pitta jwaras Kapha jwaras (or jwara with predominance of either of these Doshas) are considered Vaikrita jwaras during that (Rainy season). Similarly, Pitta jwaras is prakrita jwara during Sarad Ritu (post-rainy season) and Kapha jwara or Vata jwara is the Vaikrita jwara during that period; as also Kapha jwara is the Prakrita jwara is Vasant Ritu (spring) and Vata or Pitta jwara is the Vaikrita jwara during that period. It is stated that Vaikrita jwaras are curable with difficulty. Prakrita jwaras are easily curable except the one in Rainy season i.e. Prakrita jwara with predominance of Vata which is also considered difficult to cure like Vrikrita jwaras.

ANTARVEGA AND BAHIRVEGA OF JWARAS

Jwara, a morbid product of vitiated Doshas affecting particular srotases, may produce either an Antarvega or Bahirvega in the body.

Antarvega means manifestation of jwara in the deeper structures or tissues of the body; Bahirvega means manifestation of jwara in the superficial structures or tissues without affecting the inner tissues relatively. The following symptoms are characteristic of Antarvega and Bahirvega of jwaras.

ANTARVEGA

Burning sensation internally, great or increased thirst, delirium, dyspnoea, reeling sensation, pains in joints and bones, lack of sweating, non-excretion of stools or any other discharges (Malabhoota Dosha). Such are the symptoms of jwara which has Antarvega (manifesting inward).

BAHIRVEGA

Much external heat, less thirst (comparatively than in Antarvega) are characteristic of Bahirvega of jwara. Jwara with Bahirvega is more curable than Jwara with Antarvega.

AMAJWARA

Another consideration is whether the Doshas causing jwara are affected with Ama Dosha or not. Ama is defined as the product of Ahara Rasa (nutrient fluid) which is not properly digested. The Doshas of Vata or Pitta or Kapha or their combinations may be mixed with Ama Dosha from the onset of jwara and their consideration is absolutely necessary in the formulation of diet or of absolute starvation made according to the strength of the patient. Again Ama Dosha may affect not only the Doshas but also the Dhatus like Rasa, Rakta etc. Jwara caused by Doshas mixed with Ama Dosha is called Ama jwara or Sama jwara, while jwara with Doshas devoid of Ama Dosha called Nirama jwara. An intermediary stage is also described as Pachyamana jwarā i. e., Amajwara gradually resolving into Nirama Jwara but showing virulent symptoms, while undergoing a change, which is called Paka.

The clinical symptoms are as follows:—

Sama Jwara:—This is characterised by symptoms like salivation, nausea, uneasy sensation as if something exists inside the heart region, anorexia, torpor (Tandra) laziness, sensation of imperfect digestion, perverted taste in the mouth, sensation of heaviness in

limbs, lack of slightest appetite, Polyuria, sensation of rigidity in the body and intensity of fever.

PACHYAMA JWARA

This is characterised by very intense fever, thirst, delirium, dyspnoea, reeling sensation, evacuation of discharges like stools etc., and regurgitation of fluid in the mouth. Here also some Ama Dosha exists.

NIRAMA JWARA

This is characterised by appearance of appetite, evacuation (of faeces etc.) sensation of lightness of limbs, lessening fever, appearance of discharges, like stools etc., and generally timefactor of eight days in all cases. Nirama jwara is also called Pakwa jwara.

TARUNA JWARA MADHYAMA JWARA PURAANA JWARA

The period of duration of fever from the onset receives certain nomenclature. Thus fever which is usually continuous (remittent or intermittent) in the first eight days is termed as Taruna Jwara or Nawajwara; fever from the eight day to 12th day is termed as Madhyama jwara; fever lasting to the 13th day is termed as Purana jwara or Jeerna jwara. Generally, it is considered that Nava or Taruna Jwara is taken somewhat like Amajwara though in some cases (Nirana Vata jwara) there may be no Ama. Similarly, Madhyama Jwara and purana Jwara (Jeerna Jwara) are generally considered Nirama jwara though in some exceptional cases there may be Ama Dosha on account of indulgence of indiscrete diet etc, on the part of the patient or there may be some form of Ama dosha clinging to Rasa Dhatu. "Taruna Samataj Ashtahat Apaiti. Rasa Saamataah-Paratapi Amavartota." (Vijirakshita's commentary. Madhavanidana--Jwara.)

UPADRAVA OF JWARA

The term Upadrava means secondary symptom, which may assume a menacing form to endanger life and to draw attention of the physician to give priority in combating it. Ten Upadravas are mentioned of Jwara, any one of which may occur as a compli-

cation. They are, (1) Dyspnoea (Swasa), (2) Unconsciousness or coma (Moorcha), (3) Anorexia (Aruchi), (4) Severe vomiting (chardi), (5) Thirst (Trishna), (6) Constipation (Vidgraha), (7) Diarrhoea (Atisara), (8) Hiccough (Hicca), (9) Dyspnoea (Swasa) and (10) generalised aches and pains in the body (Angabheda.)

DOSHAPAKA AND DHATU PAKA

It is also necessary to know whether a favourable or unfavourable change is taking place with regard to the Doshas manifesting the Doshas. The Doshas that cause the tissue change have to be resolved (by the defensive forces of the body of which Jatharagni is one) and that it called Dosha paka. This Dosha paka is a favourable change towards gradual amelioration of disease. Contrasted to this, paka should not occur in the Dhatus or life sustaining structures which means aggravation of disease and an untoward change towards destruction of life. This unfavourable change is called Dhatu paka. The following symptoms herald Dosha paka i. e., a favourable change for the patient. They are:—

Gradual lessening of virulence of symptoms of Doshas such as burning sensation, heaviness etc., lightness of the body as well as abatement of fever atleast to some extent while increasing power of sense functions takes place. Such favourable symptoms indicate Doshapaka or Malapaka. Here the Doshas (also called Malas) that cause the disease are gradually resolved by the jatharagni and other life sustaining forces which the life sustaining structures called Dhatus are left out i. e., not damaged.

DHATUPAKA

Absolute negation of sleep, rigidity in the heart region, constipation, non passage of the discharges like faeces, urine etc, heaviness, anorexia, restlessness, gradual sinking (loss of strength). Such symptoms indicate Dhatu paka or destructive change of life sustaining tissues called Dhatus and this herald an unfavourable prognosis.

SIGNS OF UNFAVOURABLE PROGNOSIS OCCURRING IN JWARA

These are called Asadhya symptoms or those that herald an unfavourable prognosis or import.

Jwara caused by many powerful factors (causes) and possessing (i. e. attended with) many unusual symptoms such as, destruction of the senses (Indriya Naasanah) proves fatal. (By the destruction of Indriya is meant that the function of that sense-organ is entirely or almost lost).

*Hetubhih Bahubhirjaato Bahubhih Bahu lakshanah,
Jwarah Praanaanthkrit yaschaseeghram Indriyanaasanah*

(Maadhava Nidaana Jwara-V. 67
and also-Charaka Chikitsaa Ch. 3. V. 49)

Jwara which occurs in an extremely emaciated person, or in an oedematous person (Soonasya) or the jwara which torments the person during the whole nights (Dairgharaatrika) or the jwara which causes parting of the hairs (simulating combed hairs)—Kesa Seemanttha Krith— also proves fatal.

*Jwarah Ksheenasya soonasya Gambheero dairgha Raatrikah
Asadhyo Balavaan Yascha Kesa Seemanta Krit jwarah*

(Charaka Chikitsa-Ch. 3. V. 51 and also
Maadhava Nidaana Jwara V. 68).

Gambheera jwara, i. e., the jwara with internal burning sensation, thirst, much tympanitis, dyspnoea and cough is also fatally serious.

*Gambheerasthu Jwaro jneyo Antardahena Trishnayaa
Aanaddatvena chaatyardham Swaasakaasodga menacha*

(Susruta-Uttara Tantra-Ch. 39. V. 92 and also
Maadhava Nidaana Jwara V. 68).

The jwara which is very irregular (Vishamah) from its very outset or the Gambheera jwara occurring in an emaciated or excessively dry (Rooksha) person will be fatal.

*Aarambhaat Vishamo yasthu Yascha vaa Dairgha Raatrikah
Ksheenasya chaati Rookshasya Gambheero yasya Hantitam*

(Maadhava Nidaana Jwara-V. 69).

A jwara patient who is unconscious and suffers lying down even when he falls down (who slides down the bed) and a jwara patient who suffers from chill with much heat inside, will die.

*Visanjnah Taamyate yasthu Sete nipatitopivaa
Seetaardito antarusnasoha Jwarenu mriyate narah*
(Maadhava Nidanam-Jwara-V. 70).

A jwara patient with horripilation of hairs, with red blood-shot eyes, with a sensation as if his heart is pressed by a heavy stone, with dyspnoea, breathing feebly with the mouth (Vaktrena Chaivaut-chvasati) will die.

*Yo Hristaromi Raktaaksho Hridt Sanghaata soolavaan
Vaktrena chairachhvaisiti tam jwaro Hanti Maanavam*
(Maadhava Nidaana-Jwara-V. 71).

Jwara kills a patient suffering from hiccough, dyspnoea, unconsciousness, rolling of the eyes, intense dyspnoea and emaciation along with it.

*Hikkaaswisa thirsha Yuktam Moodham Vibhraanta Lochanam
Santato chhvaasinam ksheenam Naram Kshapaayaii jwaran*
(Maadhava Nidaana-Jwara-V. 72).

A jwara patient who is emaciated or suffering from Gambheera jwara or from anorexia or very severe (Teekshna) attacks of fever is not to be treated (for success is not likely to be got in such a case).

*Hataprabhedriyam Ksheenam
Arochakanipeeditam
Gambheera Teekshna Vegaartham
Jwaritam Parivarjayet—* (Madhava Nidanam-Jwara-V. 73).

SYMPTOMS OF RELIEF OF JWARA

Sweat, lightness of the body, itching of the head, congested condition of the mouth (Paakomukhasya), sneezing and desire for food—These indicate relief from the jwara.

*Swedo Laghutwam Sirasoh
Kandooh Paako Mukhasyacha
Kshavadhuscha Anna lipsaacha
Jwara muktasyo Lakshanam*

(Susruta-Uttara-Ch. 3 . V. 322)

Also-Madhava Nidanam-Jwara Nidana-V. 75.)

If headache does still torment the patient of jwara in spite of no sensation of fever it should be considered that the jwara is still lingering; the patient is most likely to get the fever again.

*Jwara Muktyasa Yasyapi
Siroruk Niva Munchsti
Avimuktah Sa vijneyah
Jwarah Punarupaiti tam*

(Yogaratra kara—Jwara Nidana-V. 54.)

SUMMARY

Every case of fever should be carefully examined individually and each case should be studied in the following light. Under what category does this particular case fall (if the fever is continuous) i. e., is it a Vatajwara; or Pitta jwara etc., or is it an Aagantujwara?

If it is an Aagantujwara, what is the cause (or causes—fear, grief, various forms of trauma, poison etc.) which has brought about this fever?

If it is a Sannipata fever, what is the proportion of the Doshas? (They should be guessed by the symptoms observed). Is it a Taruna or Puraana jwara? Is it Saama or Niraama jwara? Or is it a Pachyamaana jwara?

What Dhaatu or Dhaatus are affected by the jwara (i.e., the Dhaatu or Dhaatus where the Doshas are lodged)? Is the jwara a Vishamajwara? Has it affected only the body or has it affected the mind or senses (besides)? Has the jwara got Antarvega or Bahirvega? What is the tendency of the jwara? Is it towards the Doshapaaka or Dhaatupaaka?

Is the fever attended by any other symptoms or Upadhravas (complications) or any other unfavourable prognostic symptoms?

Is the jwara a prakritha or Vaikrita one? Does the jwara begin with chill or burning sensation?

What is the most predominant Dosha which is causative of the jwara?

After a clear formulation of the answers in every case of jwara at every period to the above questions, the physician should consider the Bala (strength), Kaala (season), Desa (country), Saatmya

(habit), Sattva (mental fortitude) and such other details (see Nidana). Of these Bala and Sattva, seem to be most important as the administration of food or judicious fasting have to be enjoined on their strength despite the presence of Doshas. The total answer or answers to the above and such questions and other considerations (temperament etc.) help to form the diagnosis of the case, on which alone a definite plan of treatment is laid. These answers and such considerations should be worked out in the physician's mind every time he visits the patient or every time he hears of his progress or otherwise from the patient's attendants (nurses).

TREATMENT

Diet, therapeutic measures and other regulations: "A jwara patient should be placed in a room which is free from draughts of wind. He should drink hot water freely, should curtail his speech to the minimum and should be free from such passions as anger, amorousness and grief."

*Nivaata Bhavane Vaasam Ushna Vaari
Nishivanam, Abhoori jalpam
Nishkrodha Kaama Sokamcha
Roginam"*

—Yogaratanakara.

PERFORMANCE OF LANGHANA

Practically, as every case of jwara is the outcome of vitiation of Doshas affecting the jatharaagni (digestive fire) in the Aamasaya (stomach region), performance of Langhana (fasting) is the rule.

*"Aahaaram Pachati Sikhee
Doshaan Ashaara Varjitah
Pachati, Doshakshaye cha Dhaatoon
Pachati Dhatukshaye praanaan"*

'Yogaratanakara'—Dinacharya.

"The jatharagni digests the food when it comes into contact with it; if there is no food and if Doshas are present in Aamasaya, the jatharagni digests these very Doshas; if there are no Doshas or food, the jatharagni consumes the Dhaatus and eventually life itself.

When jatharagni is weakened by Doshas and when heavy or unsuitable food is taken, then the Doshas themselves increase abnormally.

Thus here by fasting the jatharagni consumes the Doshas,

The fasting (Upavasa or Langhana) may have to be carried out for one or more days, watching carefully the strength of the patient. In Saama jwara, fasting is absolutely necessary. But where the symptoms of Saama jwara are indefinite or where the patient is weakened by such fasts as known by loss of Bala (strength), it should be stopped and judicious food, judged according to the causative Doshas, is to be given in order to keep up the strength. (The loss of strength is known by the patient's inability to get out of the bed or to perform ordinary acts, such as sitting up in the bed etc., the voice becoming very low and by the extreme feeling of weakness by the patient himself). Loss of strength, thirst, emaciation of face, sleepiness, fainting, sleep vertigo, langour and Upadravas like Swaasa (a sort of dyspnoea) etc., may result from excessive fasting (Susruta).

*Bala Kshayah Trishna Sashah
Tandraa Nindraa Bhrama Klamaah
Upadravaascha Swaasaadyaah
Sambhavanti atilanghanaath*

Susruta Uttara. 39. 305.

In such a case, some light food such as Yoosha (if Kapha happens to be the chief Dosha) or sweet fruit juice of Daadima (pomegranate) or Draksha (grapes) (if Pitta happens to be the chief Dosha) or some Kanjee (Yavaagu or Manda medicated with suitable drugs) may have to be immediately administered. The maintenance of strength is imperative, and it is only for that purpose such a fasting should be enjoined as would not impair the strength of the patient in any manner.

*Praanaa Avitodhinea chainam
Langhanena Upapaadayet
Balaadhishtaana Maarogyam
Yadardhoyam Kriyakramah*

Charaka. Chi. Chap. 3. V. 139.

Note the words Praanaavirodhinaa. Further, it is said that a Langhana properly carried out, confers a feeling of health, hunger, thirst, good taste (appetite), strength and even Ojas (the finest and essential vital principle in the body).

*Langhanaih Kshapite Doshe
Deeptegnam Laaghavesati
Swaastyam Kshutvam Ruchih
Paktih Balamojasyac jaayate*

(Vaag-Chi-Ch. 1. V. 3.)

The Langhana should confer strength; it should never decrease the strength, because it is the presence of the Dosha that is the cause of the weakness and when the Dosha is lessened by fasting, weakness will disappear and strength reappears.

WHEN LANGHANA IS PROHIBITED

The following jwaras however, are exceptions to the method of treatment by fasting (Langhana)—Pure Vaatajwara occurring in an already emaciated person or jwara caused by fear or anger or amorousness or excessive grief and jwara caused by fatigue. Further, food is not to be forbidden when the patient is very hungry (Khudite cha jantou), nor is to be forbidden to pregnant women (Gurvinee), very weak people (Durbala), children (Baala), or old folk (Vridha) and even those affected with intense thirst (Trishaartaanapi). Yogaratnakara—jwara chikitsa. V. 6.

*Na Langhayet Maarutje Jwarecha
Kshiyodbhavecha Ksuditecha Jantam
Na Gurvine Durbala Baala Vrudhaan
Bheetam Trushaarthapi Sordhva Vaatan*

Yogaratnaakara-jwara-Chik-V. 6.

Even in strong and fat people, pure fasting is advocated only for a maximum period of seven days as Aama Dosha and such malas as are lodged in seven Dhaatus are usually ripened in the course of seven days at the most; hence jwara after such a fasting of seven days is usually declared to be a Niraama on the eighth day.

*Saptaahenatu Pachyants
Sapta Dhaatu Gataah malaah
Niraamaschaapyatahprohtah
Jwaraa praayo Ashtame Ahani*

(Charaka Jwara Chikisa Ch. V. 272.)

We have said that there are two kinds of Aama—one pertaining to the Dosha and another clinging to Rasa.

Harischandra says (quoted by Vijayarakshita in his commentary or Maadhavanidaana).

Dwithaahi Saamataa Eka Rasa sya-Aparaa Doshasya

The Aama clinging to Dosha is got rid of in about 7 days (by proper fasting) at its worst. But, the Aama pertaining to Rasa may still continue afterwards (Rasa Saamataahi Paratopi Anuvartate). In this form of Aama pertaining to Rasa, medicine (Paachana) is to be administered. Along with Paachanaa some suitable food is to be necessarily given so that, there shall be no loss of strength. That is why, it is said that medicine (Paachana) is to be given after a week and some are of opinion that the medicine should be given after ten days. (Susruta Uttara Ch. 39. V. 119.) Some, however, insist on the preliminary taking of light food before any medicine is administered. All, however, agree that no medicine nor food is to be given, when there is any quantity of Aama.

*Kechte Laghwanna bhuktasya yojyam
Amoolbane Natu*

(Vaagbhata-Jwara-Chikitsa—V. 42.)

Thus, if Aama is resolved earlier (the maximum is seven days according to some others), suitable food may be given even on the second day. Haareetha says that Langhana is to be carried out in the Saama patients for one day or three days or six days according to the necessity.

*Langhanam Langhneeyaanaam Kuryaat
Doshaana roopatah, Triraatram Ekaraatramvaa
Shadraatra madya Jware,*

As Āma pertaining to Rāsa may persist thereafter, such as in Sannipāta fever, Pāachana medicines and diet may have to be given till the whole of Āma is obliterated. Charaka says that on the seventh day either Pāachana Kashaaya (if there is Āma), or Samāneeya Kashaaya (if there is only Dosha devoid of Āma) or Samāneeya medicine is to be administered to a patient, giving light food at the same time.

*Paachanam Samaneeyam Vaa
Kashaayam Paayayettu tam
Jwaritam Shadahe Ateete
Laghwanā Pratibhojitam*

Charaka-Jwara-Chikitsa. V. 158.)

PURGATIVE IN FEVERS

The initial purgative is not advocated in any form of Jwara. Nay, it is prohibited in Nava Jwara. "Natu, Rechyō Navajwaree." Vaagbhata. Sootra, Cha. 18. V. 10. Purgative is given only after the Doshas and the fever are ripened (i. e.) at the end if necessary. In any form initially, Langhana is to be carried out; Pāachana in the middle period of jwara and purgative is to be given at the end, when the Doshas are ripe for elimination. This is the treatment of jwara in a nut shell

*Jwaraadau Langhanam Sastam
Jwaramadhyetu Paachanam
Jwaraante Rechanam Proktam
Etat Jwara Chiktisitaḥ"*

(Yogaratanakara Jwara-Uttara-Ch. V. 1)

Susruta says, that whenever the Doshas are ripe and are located in the Kōṣṭha, Virechana (purgative) and such other Sodhana Vamana or Nirooha Vasti should be administered earlier even when there is Jwara.

*Yadaa Koshtaanugaah, Pakwaah Vibaddhaah
Srotasaaam Malaah, Achira Jwaritasyaapi
Tadaa Dadyaat Virechanam*

(Susruta-Uttara-Ch. 39. V. 123.)

(Virechana means not only a purgative but also any other form of Sodhana according to Dalhana). Charaka says that when the jwara persists even after Langhana, Pāachana and Samana etc., purgatives may then be given that too to a person having proper strength and jathāragni (digestive fire).

*Kriyaabhi raabhih Prasamam
Na Prayaati yadaa Jwarah
Aksheena Bala Maamsaagneh
Samayet tum Virechanaih*

Charaka Jwara Chikitsa V. 166.

Though Langhana is forbidden in pure Vaatajwara it is advocated in Vaatajwara associated with Āma Dosha (saama vaata jwaraa) the period being chosen according to virulence of Āma. Usually, Kapha and some Pitta types of jwara require Langhana for some period atleast (even if they are without Āma), as they are said to be the liquid Dhaatus (kapha pitte Drave dhatoo sahete langhanam mahat—Chakrapani Datta commentary). The whole difficulty may arise with regard to delicate people, weaklings, pregnant women, old folk, where the right type of food such as Manda (thin congee) may have to be given from the beginning even when there is Āma. In Pitta Kapha fevers associated with Āma Dosha pure Langhana may be necessary for a period of a week or even more. In a high state of Āma pure fasting is the only measure; even any sort of medicine is forbidden. In a such case, if medicine is foolishly administered this only tends to aggravate the trouble much more.

VAMANA KARMA IN FEVER

In the very initial stages of fever, which is brought about after a full, indigestible meal (sadyobhuktasya samjaate- Vaagbhata) and when Kapha is the predominant Dosha and when it is loose (utkliṣṭa) and lodged in the Āmaasaya, a Vamana (emetic with proper drugs) is to be administered and only to persons who are fit (see Vamana Karma). If there is no such loose Dosha in the Āmaasaya, the emetic should not be administered at all. Such an improper emetic may cause untoward symptoms like Hridroga (palpitation),

Swaasa, (dyspnoea), Aanaaha (tyimpanitis), and Moha (syncope). Vamana is not to be administered when the Dosha is not lodged in the Aamaasaya. (Sarvadehaanuge saame dhaatusthaa asunirharaah, Doshaa phalebhya amebhya swarasaa iva saatyayaah.—Charaka jwara. V. 146.)

According to the Dosha (it may be pure Kapha or Pitta or Vata with predominance of Kapha), Pippali and Madana (powder mixed in equal parts to be given with hot water, emetic dose – (see Vamana karma) or powder of Vatsaka seeds with Yeshtimadhu; or hot water with honey and salt; or the decoction of Patola, Nimba, Karkota, Vetrapatra, with sugarcane juice or certain varieties of alcohol. This Vamana should be given after a careful consideration of the patient's strength, season etc., (bala kaala vibhage vit).

*Pippaleebhih yataan Gaalaan
Kalingaih Madhukenava
Ushnaambhasaa Samadhuna Pibet Sa Lavanenava
Patola Nimba Karkota Vetra Patrodakenavaa
Tarpanena Raseena ikshoh Madyaih Kalpoditanavaa
Vamanaani Prayunjeeta Bala Kaala Vibhagavit.
(Vaagbhata-Chikitsa-Ch. V. 68).*

Even after such a Vamana (emetic), Langhana is to be enjoined to mitigate the Doshas.

*Krutaakrute Vaarvamane Jwree kuryaat Visochanam
Doshaanam Samu Deernaanaam Paachanaa ya
Sa Maayacha. (Ibid. V. 9)*

DIET IN JWARA

After the proper Langhana (preceded by vamana or not), the patient should be given a light food, such as, medicated Yavaagu (in predominance of Vaata), or Tarpana with fruit juice (in predominance of Pitta) or Yoosha (in predominance of Kapha),

THINGS PROHIBITED IN NAVA JWARA

In this stage of fever (nava jwara or taruna jwara), whether Langhana may be enjoined or not, the following are strictly forbidden.

Sleep in day time, bath, Abhyanga (oil-bath), Anna (solid food) sexual intercourse, anger, exposure to draught, physical exercise, or strain and astringent drugs or foods.

*Nava Jware Divaa Swapna
Snaanaabhyangaanna Maidhunam
Krodha Pravaata Vyaayaama
Kashaayamscha Vivarjayet. Charaka jwara-Chikitsa. 136.
(Some interpret kashaaya meaning as any decoction)*

SWEDA KARMA IN JWARA

In suitable cases i. e. in Vaata and Kapha types, Sweda Karma (see Sweda karma in Panchakarmas) is also advocated in the Taruna jwara. Any type of Sweda which is suitable may be used.

MEASURES WHICH RIPEN DOSHAS

Thus in a Taruna jwara (whichever form it may be), Langhana, Swedana, Kaala (the period of eight days), Yavaagu (suitable thin gruels) these constitute the Paachanas or the measures which usually ripen the Doshas. In any form of Taruna jwara, indigestible food, i. e., the food containing Guru guna is strictly prohibited, as it causes further disturbance of the already decreased and scattered jatharaagni, which means further vitiation and increase of the Doshas.

*Thrushyate Salilam Chohhnam Dadyaat Vaata Kapha Jware
Vaata Kapha Jware Iti Vaatajware, Kapha Jware
Vaata Kapha jwarecha (Chakrapani, Commentary).
(Charaka Chi. Ch. 3. V. 141)*

HOT OR COLD WATER TO DRINK IN JWARA

Plenty of hot water may be given to a thirsty patient in Vaata, Kapha and Vaata kapha (combination), along with Langhana treatment or otherwise.

*Vaata Puittiket Jware
Atyartha Daahaadi kaarake
Seetalameva deya Ityapi Soochitah
(Chakrapani Commentary).*

Madyothe Paittike

Vaatha Seetalam Tikta Kaih Srutam.

(Ibid. V. 141).

The water should be boiled and sufficiently cooled and taken when it is tolerably hot. In Vaata Pitta type of fever boiled but cooled water is advocated. In Pitta type of jwara when there is excessive thirst hot water should not be given. Water boiled with Useera etc., (useeradi quaatha choornam, see Hundred Useful Recipes) is preferred to boiled and cooled water in order to quickly allay the thirst and Pitta symptoms.

TREATMENT OF NIRĀAMA JWARA

When the jwara becomes Nirāama (ripe), Samāneeya (ameliorative) Kashaaya is to be given. If the jwara happens to be Nirāama from the beginning and in exceptional cases (such as in pregnant women, children and Aagantu jwara etc.) Samāneeya Kashaaya is to be given from the beginning, especially in Vaata or Pitta types along with suitable diet (see dietary which follows).

PURGATIVE IN FEVER

When the jwara becomes Puraana (old) or when the Doshas are confined to the lower part of the Koshta, a purgative may be administered and that only in strong patients.

—(Charaka. Jwara Chikitsa. V. 116.)

ENEMATA IN FEVERS

When there is much weakness, a purgative should not be administered but a Niroohavasti (an enema made of decoction containing drugs selected according to the causative Dōsha or Doshas) should be given. Again, the Niroohavasti should not be given when there is Āama Dōsha. It is only effective when the Doshas are ripened i. e., Pakwa or Nirāama. Note the words "Paripakweshu Dosheshu"

Jwara Ksheenasya Na hitam

Vamanam Na Virechanam

Kamam tu Payasaa tasya

Niroohairvaa Hareeth Malaan.

Nirooho Bala magnimcha

Vijwaratvam Mudam Ruchim

Paripakwe shu Dosheshu

Prayuktah Seeghramaavahet.

Charaka-Chikitsa Jwara—169-70.

"For a person, who has been weakened by fever, neither purging nor vomiting is beneficial.

"Verily, the excreta of such a person should be purged by the administration of milk (boiled with proper drugs) or by the use of enemata.

"If enemata be applied when the faults are matured, they very soon bring about strength, digestive fire, disappearance of the fever, cheerfulness and relish for food."

Pittam Va Kapha Pittam Va

Pittaasayagam Haret

Sramsanam Threen malaan

Vasthi Haraet Pakvasaya sthitaan

(Charaka-Chikitsa-Ch. 3. V. 169)

"Enemata possessed of purging virtues take away the bile lying in its own place, as also phlegm and bile that lie there; they also take away all the three faults when these lie in the Pakwaasaya.

"When the fever has become old, and when both phlegm and bile are attenuated then unto one whose digestive fire has become strong and whose stools have become constipated and dry, oily enemata should be given."

Jwara Puraanae Samksheene Kapha

Pitte Dhrudhaagnaye

Rooksha Boddha Pureshaanaam

Pradadyaat Anuvaasanam

(Ibid—V. 170)

In a case of Puraana Jwara (Jwara after 12th day), if Kapha or Pitta symptoms continue and when the patient is strong, a purgative may be given; if the Doshas are confined to the Pakwaasaya (intestines) an enema is given.

ANUVAASANA VASTI IN FEVERS

Where the Pitta and Kapha are very little vitiated, i. e., when their respective symptoms are not marked, when there is good appetite and when the bowels are constipated, an Anuvaasana Vasti is to be given; (i. e., ghee or oil which is medicated with suitable drugs is to be injected into the rectum, where it is to be kept for sometime, say, half an hour to one hour. See Anuvaasana Vasti-Pancha-Karmas).

NASYA IN FEVERS

If there is sensation of heaviness in the head or headache or when the senses like smell, sight etc., are not keen, a Seershavirechana, (Nasya) is to be given. Note that Nirooha, Anuvaasana and Seershavirechana are to be given in Puraana jwara i.e., when there is no Aama Dosha.

Gaurave Sirasah Soole

Vibaddheshu Indriyeshucha

Jeerna Jware Ruchikaram

Kuryaat Moordha Virechanam (Charaka-Chikitsa. V. 17.)

In a Puraana jwara, Abhyanga or rubbing medicated oils, Pradeha or ointments, application of pastes like Sandal etc., Avagaaha or plunge bath in medicated waters or sitz bath and Parisheka (shower bath or sprinkling) are advocated. The choice of the drugs lies according to the causative Dosha or Doshas. To give an example-Chandanaadi Thailam is applied in Puraana jwara, when there is feeling of Daaha (burning sensation) on the whole body or in any part of the body. Likewise, Agarvaadi Thailam is rubbed externally when there is distressing chilly or cold sensation (Seeta). Similarly, in suitable cases, Dhoopa (fumigation) with certain drugs Anjana (collyriums) are advocated in Jeerna (Puraana) Jwara.

Abhyaangamcha Pradehaanscha

Sasnehaan Saavagaahanaan

Vibhajya Seetoshnatayaa

Kuryaat Jeerna Jware Bhishaak

(Ibid V. 172.)

The above is the general line of treatment where the Panchakarma Vidhi (the important five lines of treatment) as well as other auxiliaries are adopted. In adopting these measures, a clear understanding as to whether the jwara is Taruna or Puraana, Aama or Pakwa is necessary. Also, what Dosha is the causative and what Dosha is complicating, should be carefully outlined from the symptoms presented by the patient. In all fevers, caused by a single Dosha or a couple of Doshas, or three Doshas, the measures already chalked out would be sufficient. But in certain abnormal types of Sannipata fever the following extra measures may be necessary.

TREATMENT OF SANNIPATA FEVER

A Sannipaata jwara patient, like the other jwara patients should be given full rest (i.e., he should abstain from any kind of Vyaama.) He should be kept in a well ventilated room free from draughts and he should not take baths, Abhyanga etc, in the Taruna stage of the fever.

Sannipaata jwara also is divided into Taruna Pachayamaana and Puraana stages like any other jwara. Here, the three Doshas are vitiated and according to their various combinations, manifold Sannipaata fevers are classified and every case should be judged on its own merits, with regard to its prognosis and treatment. If Aama is present, Langhana should be done and it should be continued for such a time as is deemed necessary. Kashaaya or medicines are not given in the beginning. As Sannipaata jwara presents many complexities, the Doshas in each case should be carefully evaluated according to their proportion.

Numerous symptoms indicate respectively the vitiation of the respective Doshas in different proportions. Thus for instance, headache or pains in the body indicate Vaata and intense burning sensation in various parts indicate Pitta. By the intensity or by the number of such symptoms in a Sannipaata fever, the predominance of Vaata and Pitta over Kapha is easily inferred. In certain cases with even less Kapha i. e., decrease beyond its required quantity may be known by the dry tongue (tongue is a Kapha Staana,) parched throat, intense thirst etc. Such a case should not be taken as merely a Vaata Pitta jwara. The absence of normal Kapha is also noticed and hence

it is a case of Ksheena Kapha. A typical case, with such symptoms constitutes Sannipaata fever with Vaata and Pitta most predominant and Kapha very much decreased. Between the two predominant Doshas, namely, Vaata and Pitta, if the Vaata happens to be the more dominant of the two Vaata is said to be Vriddhatama, Pitta is said to be Vriddhatara and Kapha is designated as Ksheena (Vaato Vriddhatamah, Pittam Vriddhataram Kapha Ksheenah.) This case is different from another with Vriddhatama Vaata, Vriddhatara Pitta and Vriddha Kapha. Thus evaluating Doshas in this manner there may be innumerable Sannipaatas.

In a case where two Doshas are abnormally vitiated and increased and the third decreased, the decreased Dosha should be developed. Thus in the above case Vaata is most predominant, Pitta is less and Kapha very much decreased.

Vardhanena eka Doshasya
Kshapanena uchhritasyacha
Kapha Sthaanaanupoorvyavaa
Sannipaata jwaram jayet (Charaka-Chikitsa-Ch. 3. V. 282.)

In the above case Kapha should be developed (Vardhanena Eka-doshasya) by the administration of Mathura Rasa (i. e., administration of grape juice or decoction of dried grapes, glucose or even milk). Here the diet and every article given as food or drink or medicine should receive very close attention as regards to its quality-Rasa Veerya, Vipaka etc.

Yathaa Vruddha Kaphe Vruddha
Tarayoscha Vaata Pittayoh
Madhuram; Taddaivhuddha tara
Vaataa Pekshaya Kapham ksheenam
Vardhayadapi jwaram Bala
Vaddoshahantutayaa Harati
Tathaa Vruddhe Kaphe Vruddha
Tarecha vaate Vriddhatame
Cha Pitte Madhura Prayogo jnyah.
 (Chakrapaanidatta Commentary-Charaka-Chi. 63. V. 282.)

Only suitable forms of Mathura Rasa are to be given. Similarly, to increase the decreased Pitta, Amla Rasa, such as, Daadima (sour)

juice is to be given and so on. Here the Mathura Rasa such as, grape juice (glucose) etc., increases Kapha Dosha to the required quantity contributing to the equilibrium of three Doshas. This equilibrium of the three Doshas may be still abnormal as there may be the Aama Dosha clinging to the Rasa Dhaatu. When this is got rid off by Paachana Kashaayams as well as by Samant (ameliorative) Kashaayams or medicines, normal equilibrium of the Doshas may result but not otherwise. The point to remember always is to attend to the jaatharaagni which should be kept in the mind at any and every stage, while Samana medicines or any medicines are administered to lessen the Doshas.

If a particular Dosha is most predominant in a case of Sannipaata fever, that vitiated Dosha is to be lessened first. For instance, if Vaata is the most predominant Dosha the use of Madhurarasa, grape juice, glucose or Amlarasa like Daadima and Sweda Karma are to be resorted to in order to cut it off. By such measures not only the most increased Doshas is lessened, but the decreased Doshas are also to some extent elevated, thus contributing to an equilibrium of the Doshas. Similarly, if two Doshas are on the increase in a Sannipaata fever, say Vaata and Pitta, and when Kapha is decreased, the use of Madhurarasa (administration of decoction of grapes etc.) is advocated to lessen both the increased (Vaata and Pitta,) and also to raise the lowered Kapha incidentally. If the three Doshas are equally on the increase, the Kapha Doshas in the Aamaasaya should be first attended to. (Kaphasthaanaanu Poorvyavaa Tulya Kakshaan jayet Malaan) Vaagbhata. (Ch. 1. V. 146.)

Vardhanena yeka Doshasya
Kshapanena uchhritasyacha
Kaphasthaanaana Poorvyavaa
Tulya Kakshaan Jayet Malaan
 (Vaagbhata Chikitsa Ch. 1. V. 146.)

That is to say proper Langhana, or Paachana or initially even Vamana should be given. Even if the symptoms indicating the three Doshas are manifested with equal force, Kapha should be treated first. Langhana, Paachana, bitter drugs, pungent drugs (like Sunthee) should be preferred to drugs which are Tridoshasamana (like Gudoochee) to effect a rapid cure.

Atrochyate, Jwaranaasanaani
Dravyaani Tidoshaghnaani Viralaani
Eka Doshaghnaani Punah
jwarahantrooni
Tridoshaghnebyah Samardha
Taraani Bahutaraaniti.

(Arunadatta-Commentary-Astanga-Hridayam-Jwara
 Chik. V. 146.)

For, drugs which lessen one Dosha are more powerful and are more prevalent in number than the drugs which can affect the three Doshas (like Guduchee, Hareethaki Aamalaki etc.)

Bheda (as quoted by Chakrapaani) also says, that in any Sannipaata jwara Aama and Kapha should be tackled first and when these two are considerably decreased Pitta and Vaata should be dealt with.

"Sannipaata Jware Poorvam
Kuryaat Aamakaphaapaham
Paschaat Slesmani Samskheene
Samayet Pitta Maarutam"

In any other disease (i.e., other than jwara) with equal vitiation of the three Doshas, Vaata should be first treated, Pitta next and Kapha finally.

Jwara adanyatra Sannipaate same eva
Vaatah Poorvam Chikitsyate uktam
Vaatasyaanu Jayet Pittam Pitta Syaanu Jayet Kapham
 (Chakrapaani-Commentary-Charaka-Chik. V. 28:).

In the Taruna stage of the Sannipaata jwara, in addition to fasting or Paachana or both, the following measures are advocated.

Langhanam Vaaluekaa Swedo
Nasyam Nisteevanastadhaa
Avalemanjanam Chaiva
Praak Prayojyam Thridoshaje
 (Yogaratanakaa-Jwara-Chik-Sannipaata-No.2).

1. Valuka Sweda—Fomentation with heated sand to forehead, chest, back, abdomen or the affected parts.

Maatulungaardrakarasam
Koshnam Trilavanaanvitam
Anyadahya Siddha Vihitam
Nasyam Teekshnam Prayojayet
 (Yogaratanakara-Sannipaata-Jwara-Chik).

2. Nasya—or dropping of a few drops of fresh juice of Maatlunga and Aardraka (fresh ginger) mixed with triple salts (Saindhava, Sauvarchalavana and Bidaalavana). This is especially useful in headache. This may however be postponed till Aama Dosha is mitigated by proper Langhana.

Aardraka Swaraso Petam
Saindhavam Sakatutrayam
Aakantham Dhaara yeehasyaa
Snisteevechha Punah punah
 (Ibid)

3. Nishtheevana-Aardraka Swarasa (fresh ginger juice) mixed with Saindhavalavana and Thrikatu powder is to be gargled or kept filled in the mouth for sometime and spat out; the process is to be repeated several times.

Katphalam Paushkaram Srungee
Krishnaacha Madhunaasaha
Swaasakaasa Jwaraharah
Sreshtha Leha Kapaahntakah
 (Ibid).

4. Avaleha or licking with the tongue a jelly like substance formed by mixing the fine powders of Kaphala, Pushkaramoola, Sringee and Pippalee with honey. This clears the Kapha in the mouth or throat.

5. Anjana—or suitable collyrium especially, to counteract stupor and sleepiness (Tandraa).

Bhunimba Katukaa Kustham
Kaaravcendrayavah Satee etaani
Samabhaagaani Sookshma choornaani
Karayet Prasvade Kantoa
Rdhecha Sandhi Mardana
mishyatet Yeta duddholanam
Sreshtha Sannipaata haram Param
 (Ibid).

6. Uddhoolana—Rubbing the sweating parts or the forepart of the neck with the powders, such as, of Bhoonimba, Katuka Kush-tam, Kaaravi, Indrayava, and Sati, equal parts (dusting as with boric powder).

7. Jihwaalepa—Anointing the tongue if it is dry (ucchushka), cracked (sphutita) with the fine paste of Draaksha fruits (grapes) finely ground with honey, and mixed with a little ghee.

If Vaata Dosha is predominant in sannipaata fever, after the Taruna stage is passed, suitable Niroohavasti is to be given.

*Uchhushkaam Sphutitaam Jihvaam
Draakshayaa Madhupistayaa
Pralepayet Saghrutayaa
Sannipaataatmakc Jware*

(Ibid-V. 1).

SPECIAL TYPES OF SANNIPAATA FEVER

Sandhika, Antaka etc., are certain specific types of Sannipaata. Each may be regarded as a special symptom-complex. These symptom-complexes may occur in various disorders such as Typhoid fever, Pernicious Malaria, Pneumonia etc. Their treatment is referred to elsewhere.

PAROTITIS—(KARNAMOOLASOTHA)

*Sannipaata Jwarasyaante
Karna Moole Sudaarunah
Sodhah Samjaayate Tena
Kaschideva Pramuchyate* (Charaka-Chiki-Ch 3. V. 283).

In certain types of Sannipaata fever, usually at the terminal period, an inflammatory swelling below the ear occurs (parotitis). This is known as Karnamoola Sotha. Blood letting, administration of medicated ghee, certain Nasyas, gargles with medicated substances and fomentations are advocated.

RAKTHA MOKSHA IN SANNIPAATA FEVER

*Seetoshna Snigdha Rukshaadyaih
Jwarah Yasya Nasaamyati
Saakhaanusaaree Raktasya Sovasekaat Prasaamyati*
(Charaka-Chiki-Ch. 3 V. 285).

In certain forms of Sannipaata jwara where applications or measures with cold or hot things, or Snigdha (oily) or Ruksha (dry) things etc., fail, blood letting (Rakta Moksha) is advocated.

The above are the general outlines of the measures of treatment peculiar to Sannipaata jwara. As Sannipaata jwara is not one specific disease and its manifestations are varied according to the proportion of the vitiated Doshas in a manifold manner, every case should receive special attention according to the vitiation of the Doshas, Dooshya, Satwa, Saatmya, Bala, Aahaara etc., and treatment suitable to the different conditions should be chalked out.

TREATMENT OF TYPHOID FEVER *

Dr. A. Lakshmipathi in opening the paper said, that there was no scientific medication in modern hospitals as far as Typhoid is concerned and that every doctor had his own freaks and fancies, in treating Typhoid cases. Generally, they are satisfied if the patients are kept quiet by some sedatives or hypnotics. Barring these drugs, they depend only upon nursing and dietary in their own way. Their text books say that "milk is the best suitable diet for patients in acute stages. Three pints a day is quite sufficient." (F. W. Price). Dr. Lashmi Pathi said that whatever may be the experience of physicians in Europe, milk did not suit patients of Typhoid here unless it was given in a modified form by boiling it with certain drugs used in Aayurveda and even that only when the digestive fire is restored.

He dealt in detail about the 13 different types of Typhoid fever, which is called Sannipaata jwara, in Aayurveda. He described the methods of Medicated Enemata, 'Nasya' (Cerebral purgatives) Anjana (Collyriums,) oral cleaning (Dant'ha Dhaavana) and the system of fasting advocated in Aayurveda. In Puraana Jwara, that is, after the fever lasted for 8 to 12 days according to the type of disease, special oils are applied to the body for gentle massage, sponging,

*Extracts from the paper read by Dr. A. Lakshmipathi, B. A., M. B. & C. M., Bhishagratna, Madras at the First Annual Conference of the West Godavary District Branch of the Indian Medical Association held at Ellore on 30-1-44

spraying, wet pack and plunge baths in special decoctions advocated according to the different types and stages of the disease.

Dr. Lakshmi Pathi said that in Andhra, physicians developed their own method of treatment, different from herbal school advocated by Charaka and that in their hands, 'Sannipaata Bhairavarasa,' Mrutyunjayarasa, Brihat Kasturi Bhairava, and Sarvaanga Sundara-raasa, proved very valuable. They contain purified Aconite, Arsenic and Mercury in combination with certain herbs specially suitable for different symptom complexes. They use also the Cobra poison and preparations containing bile of different animals. 'Suchikaabharanam, is rubbed into the tissues through an incision made in the scalp, when cerebral symptoms predominate.

He then gave a vivid description of his own treatment as follows:—

MY OWN TREATMENT

To sum up, I shall give my treatment of Typhoid fever. It is very simple. I find also that it is the best in the long run.

The moment the case comes under my observation and when the nature of the case is not yet diagnosed, I start with one 2 grain pill of 'Aananda Bhairavi' with the juice of raw ginger and honey in the morning and with honey alone at night. If there is slight cough, I mix Taalisaadi Churnam 5 grains and give the same with betal leaf juice and honey or Raasna root and honey at night. One inch of raw ginger is ground with one or two ounces of water and the filtered extract is given with plenty of honey. It is pleasant to take. It promotes appetite, evacuates bowels, and improves the secretion of urine. This treatment is carried on for three or four days by which time small-pox and other eruptive fevers are eliminated. The patient is starved except for drinks of hot or cold water, as a general rule, according to his desire. If headache is troublesome a plaster made of one part of pepper and two parts of raw rice ground soft with water and boiled into a paste is applied to the forehead and temples.

Even when there is an indication in the pulse or in other symptoms that the fever is going to be a prolonged fever, I continue the same medicine, but I give thin water taken from boiling rice as soon as the rice begins to boil. Note that it is called not Conjee—it is

Pongu Neelli in Telugu. A little salt, sugar, or a small quantity of milk is added according to the appetite of the patient. Barley water mixed with butter milk is also given freely diluted and seasoned to taste.

I find that butter milk as it is usually prepared in our homes is very much better than milk for Typhoid patients. It checks fermentation and all the troubles due to a bloated abdomen.

By the end of the tenth day if the fever does not subside I start in the 'Sannipaatha Bhairavam—2 gr. pill morning and evening. Meanwhile an enema of the decoction with neem leaves is given every morning if the patient is constipated. The Anupaana or the vehicle is changed according to the needs of each day.

I find no difficulty in keeping up the strength of heart without Digitalis of Nux-Vomica. The elimination of Toxins by itself greatly helps the heart. This treatment is kept on till the 14th day as all complications are avoided by starving the patient as much as possible. I carry a small cane with me purposely and keep it in front of the patient to symbolise that I am always watching him and that the cane will be used for any disobedience of my instructions. It may look like a joke but I know that this has a wonderful effect upon the patient's mind and more upon the minds of the attending members of the family. We say "Lankhanam Paramoushadham."—"Fasting is the best medicine."

CONTROL OF HIGH TEMPERATURE

If however the temperature remains more than 103 degrees and the patient expresses a desire for the touch of cool objects and complains of burning sensation in the body, I put him in a cold pack with or without ice, so that the high temperature is controlled for some hours during the day. This is highly recommended in Ayurveda, when pitta is predominant.

Asprin and Salicylates were never used by me for the last 24 years. There is no bloating of abdomen, because the intake is carefully watched and the elimination is established by the use of medicated Enema. Pain in the head and pains in the body are relieved when the Niraama stage is attained, (i.e.,) when the fever matures.

TREATMENT OF PURAANA JWARA

I now start the treatment of gentle massage with Vaatahara, Pitta hara and Kapha hara oils as indicated by different types. The oil is rubbed away gently with a soft towel dipped in hot water or hot milk. No soap is used. This keeps the skin soft and free from bed sores.

The diet at this stage is usually thin butter milk diluted with one to four times of water according to the appetite. Rice-water or barley water is also mixed with butter milk occasionally. Orange or grape juice mixed with water and sugar is also allowed in moderation. The main principle is to starve the patient as much as possible until the fever goes down by itself. The urine is measured and its secretion is encouraged by these drinks. I sometimes give 'Taravaani' (cold rice water) if the secretion of urine is not satisfactory, instead of buttermilk. It saved many lives.

FASTING TREATMENT

Although fasting is recognised as the basic principle of treatment in Typhoid fever, there is a limit to this treatment. Starvation (Lankhna Chikitsa) at first helps the tissues in getting rid of their toxins (faults or Dhoshaas.) But after the faults are consumed, the starvation consumes the tissues themselves. Therefore the rule is to see that we should always have an eye to preserve the strength of the patient.

*'Balaadhistaana maarogyam,
Yadardhoyam kriyaakramah'*

(Charaka, Jwara, Chikitsa. V. 141.)

In prescribing fasts the physician should take care that the strength of the patient is maintained. It is further emphasized that strength is the Adhistaana—the foundation of the cure. The cure is nothing but the renovation of strength. All operations of the treatment exist for this purpose. It is wrong to think that more you feed the greater will be the strength. Strength depends upon the food that is assimilated. The food that is not assimilated is a burden to the system. Sometimes, it acts as a poison (Taruna Jwara.)

It is here that the knowledge of the physician should help him in distinguishing the immature fever, where fasting is prescribed, from the mature fever (Purana Jwara) where fasting is prohibited.

SYMPTOMS OF IMMATURE FEVER

Immature fever is recognised among other symptoms by disgust for food, heaviness of the stomach, drowsiness, absence of intermission of the fever, non-escape of the faults (Doshanaam Apravartanam), discharge of salivary secretions, filthiness of the mouth, presence of undigested matter in the stools, cheerlessness of body and the mind. These are some of the symptoms of immature fever.

The symptoms of mature fever on the other hand are hunger, lightness of the limbs, mildness of fever, regular escape of the faults (Doshapravritti), on the eighth day. The passing of the 7th day is generally taken as a landmark to indicate the maturing of the fever. (Charaka-Jwara-Chikitsa. 133-137)

Definite rules stating what to do and what to avoid under the two different conditions of mature or immature fevers are laid down carefully, so that the success in the treatment depends upon the delicate or subtle understanding of the physician of learning and skill.

THE USE OF PURGATIVES

All medicines, especially purgatives, are to be avoided very scrupulously during the immature stage of the fever,

"Faults, when they pervade the entire body, when they are immature and when they have their seat in the 'Dhaatu' (called Rasa) are exceedingly difficult of being expelled and the attempt to do it is fraught with diseases, even as it is exceedingly difficult to press out the juice of an unripe fruit."

THE USE OF GRUELS AND MEDICATED GHEE

"Gruels, in consequence of being mixed with (proper) medicines, as also of their lightness, kindle the digestive fire, and help the escape of the obstructed wind, urine, and stools.

"In consequence of their being liquid and hot, they produce perspiration. In consequence of their liquidity, they assuage thirst. In

consequence of their quality as food, they uphold strength. In consequence of their mobility they are light."

When the faults have become matured, the drinking of medicated ghees operates like Amrita (Nectar)."

*' Paripakwaeshu Doshehu,
Sarpishpaanam Yadha Amrutam. V 164.*

A CONCRETE INSTANCE

Once a doctor wrote to me for advise in a case in which there was extreme suppression of urine. I asked him to stop all his medicines for a day or two giving only pure water and to write to me again. He wrote back saying that he was not giving any medicines except 'Urotropin' 3 times a day as an antiseptic, Bromides at night to induce sleep, Liquid Paraffin at bed time to move the bowels and a few drops of Tincture Iodine now and then to stop vomiting and yet he thought that he did not give any medicine. I had to insist on withholding every drug in order to relieve the tissues of all irritation. The moment this was done, and when I prescribed fresh Taravaani (cold rice water) with a little lemon juice and sugar making it a pleasant drink, and a little extract to Punarnava root a free flow of urine was started and all the symptoms, toximia and fever disappeared as if by miracle.

This one instance is enough to demonstrate the harm that is done by us Medical Practitioners, in these matters. That is why I am terrified at the growing use of very poisonous drugs by mouth and by injections. I would sooner join the ranks of Naturopaths and give up all drugging rather than sacrifice the life of the patient for the sake of experiments of modern medicines. I have known a graduate of medicine, who became blind in both eyes after an injection for doubtful syphilis.

Further when foreign medicines are not available on account of this war you many all study the system of Aayurvedic Treatment and if you use these well tested Aayurvedic preparations in exactly the same way in which they have been used by reputed practitioners of Aayurveda, you will be surprised to see remarkable results. We need not suffer for want of drugs. I had personally no need at all to take out a licence which the practioners of modern medicine had

to take in order to obtain his supply of drugs. This is the acid test of the self sufficiency of Aayurveda as a medical science.

COMPLICATIONS

With the above treatment, I really get no complications if the patient is handled by me from the beginning. In case any complications arise, I shall have no hesitation to use boldly any medication indicated in the Ayurvedic Texts exactly in the same way it is intended to be used. But a deep study of this science and careful watching of the case according to that method is necessary.

NO SERIOUS ANTAGONISM

Microbic infection has been accepted in Ayurveda as a cause of disease. The theories of circulation and inflammation are common to both the systems. There is no serious antagonism in the line of treatment. Only greater care is required in studying symptom complexes and in adjusting the treatment to various conditions. The object is always to restore the equilibrium or the normal condition of the nutrient cells and waste materials. (Doshas-Dhatus and Malas). You have to carefully study the Tridhaatu Siddhaanta in order to understand the properties of drugs according to Ayurveda.

VAATA, PITTA, KAPHA AND SANNIPAATA TYPES.

Roughly speaking Vata type of fever corresponds to the cerebral or Nervous type, Pitta to disturbance of the Abdominal and Circulatory symptoms and Kapha type relates Lymphatic, Respiratory and Serious systems. Sannipaata Type is one in which all the systems are involved to a greater or less degree. There are 13 types of Typhoid according to the symptom complexes presented by fever.

An occassional use of this and that Aayurvedic medicine, because it was found useful in some one or other case amounts to quackery. I have used Plumbago Xylaxicum (Chitraka) which is considered to be a poison according to modern Medical Jurisprudence, in my daily practice, in Dyspepsia, Septicaemia, Peurperal fever, Rheumatism and many other conditions without the least harm. I trust to Aconite and Arsenic given in the way in which it is used by Ayurvedic physicians as if they are no poisons at all. The human

test tube (the stomach) is different from the glass one. Success in medical treatment depends, it need not be said, upon very careful watching of the minutest symptoms and in knowing before hand what is going to happen the next day.

DILIGENT STUDY ESSENTIAL.

A physician has to note very diligently the different conditions of: (1) the deranged faults, (2) the tissues or organs involved directly or indirectly, (3) The climate. (4) The strength of the patients, the power of digestion and the temperament of the patient (5) His age, (6) Habits of living. (7) Mental strength or fortitude — Satwa. (8) Aahara (food) in minute detail, in order to arrive at a correct diagnosis and to decide upon the proper line of treatment of every stage of the disease. (Vide Vaagbhata, Astangahridaya. Sutra Chap. XII verses 66 to 70.)

Such a physician will not be timid in treating any disease. This is the secret of the success of eminent Ayurvedic physicians.

*Dushyam Dosham balam kalamalam prakritim vayah,
Satwam Saatmyam tadha ahara mavasthaacha pridhagvidhaah,
Sukshma Sukshmaa Samikshaiehaam doshoushodha Nirupene
Yovarthathe chikithscaayaam nasaskalati Jatuchit :—*

AAGANTHU JWARA.

In a Jwara caused by injury (Abhighaata) Ghrita (medicated or unmedicated) is to be internally administered as well as applied externally (anoointed to the part or to the whole body—Abhyanga).

*Abhighaata Jwaro Nasyet
Paanaabhyangena Sarpishah*

Alcohol may be given suitably. Meat juice or meat essence is to be given considering the Saatmyaa of the patient (Saatmyaih Maamsa Rasaudanaih). Blood letting also is to be resorted to in some cases (Raktaava-sekaih Madyaischa). If there is inflammation and ulcer (Vrana) the treatment for Kshata and Sadyovrana is to be given.

In a Jwara caused by excessive and sudden emotion, such as amorousness (Kaama), grief, (Soka), and fright (Bhaya), tactful

measures, such as, words of consolation, cheering up and inspiring confidence in the patient (Aaswaasa) are necessary.

*Aaswaasrena Istalaabhena
Vaayoh Prasamanenacha
Harshanaischa Samam yaanti
Kaamayoka Bhaya Jwaraah*

(Charaka Chikitsa-Ch. 3. V. 316).

*Kaamyath Ardhaih Mano
Jnaischa pittagnaischapyupakramaih.*

(Ibid. V. 317).

The patient's desires should also be fulfilled to the extent possible (Ishta Laabhena). He should be delighted and thrilled (Harsha). Jwara caused by anger subsides by making available his choicest articles (Kaamyaih Arthaih), by speaking affectionate and good words (Sadvaakyaih) and by giving all anti-pitta forms of treatment (Pitta ghnaihcha Upakramaih).

*Kaamaat Krodhajwaro Naasam
Krodhaat Kaama Samudbhavah
Yaati tabhyaam ubhabhyaam cha
Bhaya Soka Samutthitah.*

(Charaka-Chikitsa-Ch. 3. V. 318).

In Jwara caused by Kaama (strong amorous feelings), anger should be produced in the patient for effecting a cure. Similarly, a fever caused by severe anger (Krodha) may be cured by producing amorous feelings in the patient.

Jwaras caused by fear or grief may be cured by producing feelings of amorousness and anger.

In other Aagantu Jwaras caused by poisoning etc., suitable methods of elimination of the poison along with antidotes should be adopted.

*Kshataanaam Vranitaanaamcha
Kshata Vrana Chikitsayaa*

(Charaka-Jwara-V. 316).

In a fever caused by Kshata (cut) or Vrana (wound), the treatment indicated for Kshata (cut) and Vrana, should be adopted.

TREATMENT OF VISHAMA JWARA

A Vishama Jwara is of Tridosha origin with predominance of Kapha or Pitta usually. Vamana Karma and Virechana Karma should be performed at the outset.

(Jware tu Vishame Kaaryam Oordhwam chaathascha Sodhanam —Susruta V. 211).

*Etena Sarveshveva Vishama Jwareshu
Kaphapittadhikatayaa
Vamana Virechane Prayoktavye
Ityuktam ; Anyetu Vishama Jwara
Ityatra Yadyapi Vishama Jwara
Sabdena Santatam Vihaaya
Anye Vishama Jwaraah Proktaah
Tadhaapyatra Truteeyaka chaturdhakau
Graahyanyatah Tayoreva
Saadhaaranam Vaatadiharam
Aasthaapana Virechana Vamanaudikam
Yuktamiti vyaachakshate.*

(Dalhana Commentary).

According to some authorities, this line of treatment is not advocated in Santata Jwara (Dalhana).

*Vaata Pradhaanom Sarpirbhih
Vasthibhih Saanuvaasanaih
Snighoshnaih Annpaaniascha
Samayet Vishama Jwaram*

(Charaka-V. 289 and 290)

But, in Triteeyaka (Tartian) and Chathurthaka (Quartan) fever, Vamana or Virechana may be done. In Triteeyaka or Chathurthaka jwara with predominance of Vaata many Niroohavastis and Anuvaasana Vastis should be given intially and along with other remedial measures. It should be remembered however, that suitable Sweda Karmaas should precede these Vastis in all cases. In Triteeyaka and Chathurthaka jwaras with predominance of Vaata Anupaana, food and other auxiliaries which are Snigdha and Ushna (hot) should be frequently administered.

*Aasthapanam Yaapanam Vaa karayet
Vishama Jware* (Charaka-Jwara-Chikitsa. V. 298).

*Kashaayoshnam Cha Vishame
Jwaresastamkaphottare* (Charaka-Chi. 3. 292).

*Atyabhishtamdi Gurubhih
Vaamayevaa Punah Punah* (Susruta-Jwara-Ch. 39. V. 260).

In cases with Pitta predominance, milk or medicated ghee (Sarpishaa Samskritena cha) and other substances (medicines) or food, which are bitter and Seetha (like nimba etc.) should be frequently given, along with suitable purgatives. In cases predominating with Kapha decoctions and diet, which are Paachana and Ruksha should be given along with judicious fasting (Vilanghana), Rasaas which are Kashaaya and Ushna are also to be administered along with Vaamana Karma.

In Vishama Jwara, at the time of the expected attack, the patient should take liquid foods of Guru guna in a large quantity, to his heart's content and he should be made to vomit the whole food (Susruta-jwara V. 260). He should drink a very large quantity of ghee and then after a while, he should vomit it out.

(Sarpisho Mahateem Maatraam Peetwa Tatchardayet Punah. —Charaka V. 296)

Or he should have Sneha Karma and Sweda Karma performed on that day, as well as on the previous day and drink the decoction of Neelini, Ajagandha, Trivruth and Katuka rohinee.

*Neelineam Ajagandhaam Cha Trirutam Katurohineeni
Pibet Jwaragame Yuk yu
Sneha Swedopapaaditah* (Charako-Ibid. V. 295)

Or he should take strong alcohol (Teekshnam Madyam Paya-yeta-Susruta), that day; or he should be administered a purgative; or after having Sweda Karma that day, he should receive a Nirooha Vasti or after taking strong alcohol and good food, he should sleep in day time; or the patient should be frightened with non-poisonous snakes, elephants etc. His mind should be made agitated (at the expected period of the Vishama jwara) with previously arranged mock thieves or Policemen or such other measures. When the mind

is thus strongly agitated he should not receive any food on that day (Nirvishaih Bhujagaih naagih, Vineethaih Kritha Taskaraih, Traasayet Aagame chainam Tat Ahah Bhojayet na cha—Susruta Jwara Chikitsa V. 259),

Hingu tulyaana-Susaindhava

(Charaka 302)

In Vishāma Jwara, Nasya Karma is advised with Tiger's fat mixed with asafoetida in equal parts along with rock salt and with other suitable drugs—(Charaka V. 301).

Similarly, Anjana (collyrium) to the eyes especially with Saindhalavāna, Pippali, Manissila (red orpiment), well ground with gingelly-oil is advised (Charaka). Dhupana or fumigation with guggulu, Nimbapatra, Vachaa, Kushtam, Hareetakee, Sarshapa, Yava, mixed with ghee (or with various other recipes given in the texts) is advised. All Anjanas Nasyaas and Dhoopanas advocated in the treatment of insanity are applicable in Vishāma Jwara. As Vishāma jwara is considered to be an infection and is classified in Aagantu diseases accompanied by the vitiation of the causative Doshas, Daiva Vyaapaasraya treatment is advised by ancient authors. Here, Aagantu causes mean that the patient is attacked by certain spirits—Sooskshama Saareeries. Brahmacharya, austerities, acts of charity, truthfulness in speech, mind and action, obedience to elders and self-control are specially insisted on in this form of jwara when it resists the common therapeutic measures (Charaka, Treatment of Jwara V. 224, 225).

TREATMENT OF MALARIA

We have been receiving reports, more particularly from Guntur District that there is a prevalence of Malaria of a serious type and that quinine is not available and if available, it is very costly and also not giving satisfactory results. I have received enquiries from some friends in the I.M.S. and from the States of Cochin and Jodhpur asking for Aayurvedic recipes for Malaria. Considering the seriousness of the situation, I am issuing to the press the following statement incorporating the results of my experience in this matter.

According to Aayurveda and my experience, Malaria may be broadly classified into 4 types.

(1) The Vaata type where shivering and cerebral symptoms are more predominant.

(2) Pitta type where burning sensation, billiousness and restlessness are more prominent.

(3) Kapha type where heaviness of the body, depression and vomiting are conspicuous symptoms.

(4) Sannipaata type or severe cases of mixed type where most of the above symptoms may be noticed.

It is important to note this classification as the treatment differs in each case according to the type. The primary object in view is to bring the abnormal condition of the tissues to the normal, whereby the parasite is destroyed or is driven out. The following prescriptions have been selected out of many that were tried by me. These have the sanction of standard authors in Aayurveda and of reputed practitioners of the present day. They are absolutely harmless. They may be said to be foolproof. They may be prepared in any village.

1. ARKAADI VATI

Ingredients:—Arka flower (white or purple), Lasuna (Garlic) and Pepper in equal parts.

Method of Preparation:—Grind the three raw drugs together into a soft mass and make 5 grain pills. Preserve it in a closed bottle. Dose:—1 to 3 pills at a time three times a day with the decoction of Tulasi made as follows:—

Take Tulasi five dalas or 15 grains—Ela 1 fruit (cardamom 2 grains); Pepper 8 seeds (15 grains); Guda (Jaggery) 1/2 tola and water 2 ounces. Boil the ingredients and filter. One dose along with a pill.

Action:—Anti-Malarial specially used in Kapha and Vaata types.

2. KUMAARYAADI VATI

Ingredients —Kanyaasaana (Musambaram) 1 part; wood and bark of Vishamushti 1 part, Jeeraka 1 part and pepper 1 part.

Method of Preparation:—Make fine powder of the above and grind with water and make pills of 5 grains each.

Dose :—One pill three or four times a day with Panchatikta Quaatha.

Action :—Hepatic, stimulant, mild laxative, anti periodic and tonic.

Uses :—It is very much used in Malaria. Specially useful in Pitta types. Also in liver and nervous diseases—as a heart tonic and blood purifier.

3. SEETHAAMSU RASA

Ingredients :—Purified Manisila, purified Taalaka, each one part, Thrikatu churnam 2 parts.

Method of Preparation :—Mix the above and grind well for 6 hours with the decoction of Neem bark and make pills or tablets of 2 grains each.

Dose :—1 or 2 pills, 2 to 4 times a day along with honey. water or with Panchatikta of Tulasi quaatham.

Action :—Anti-periodic, febrifuge, blood purifier and tonic.

Uses :—It is most useful in malarial fevers and acts better in combination with Paachatikta or Tulasi quaatha or a decoction of of Neem or Chiraata. It may be used in all types of fevers.

In Asthma and chronic bronchitis, it may be given with equal parts of Pravaala Bhasmam.

In eczema, psoriasis and other skin diseases it has acted well as blood purifier when given internally and also applied externally with the juice of neem leaves or a decoction of neem bark.

In toothache caused by decaying tooth clean the cavity and apply a paste of this pill, rubbed with cloves and water or neem leaf juice.

PANCHATIKTHA QUAATHA CHOORNAM

Ingredients :—Kiraathatikta, Katukarohini, Nimba Twak, Patola (Samulam) and Gudoocheelata,

Method of Preparation :—Take equal parts of the above five ingredients, dry them in the sun, and make coarse powder and preserve.

To Make Kashayam :—Take one ounce of the Quaatha choornam. Add 16 ounces of water. Boil down to about four ounces and strain. Add sugar or jaggery 1 tola per dose.

Dose :—2 to 4 ounces of the Kashaayam, two to four times a day. Uses :—Used in all fevers especially in malaria and influenza. Its action is enhanced when given with Seetaamsu Rasa or other fever remedies.

SUDARSANA CHOORNAM

Ingredients :—Nimba twak, Rakta Chandanam, Useeram, Mari-cha-Guduchi, Patola, Daaruharidra Kantakaari, Parpaataka, Vacha, Katukarohini, Chitramoolam etc., forty drugs (This recipe is found in almost all the Ayurvedic texts—Sarangadhara-Madya) or the above twelve drugs will do.

Method of Preparation :—Take all in equal parts and Kiraata tikta equal to the mixture of all above. Dry them in the sun and make fine powder and preserve.

Dose :—5 to 30 grains with honey or pepper decoction and sugar 2 to 4 times a day.

Action :—Anti-dyretic, anti-periodic, anti-septic, blood purifier and tonic.

Uses :—In all fevers acute or chronic due to any cause, it is a favourite remedy. In skin diseases, it may be applied as an ointment mixed with ghee or oil. Contains half the quantity of Kiraata, which is a good liver tonic and blood purifier

NIRGUNDI KASHAAYAM

In Vaata types i.e., in Malarial fevers where shivering or cerebral symptoms are more predominant the above medicines may be used along with decoction of Nirgundi (Vitex Negundo) prepared as follows :—Take the leaves of Nirgundi 10 tolas, pepper 2 tolas, Jaggery 10 tolas and water 40 tolas and boil down to 20 tolas. Filter and give in 8 doses along with any of the above medicines.

IMPORTANT NOTE

Only one medicine has to be used at a time according to the types of the fever. One remedy may not be able to cure all varieties.

It should be realised that a learned Vaidya may use the above medicines not only in Malaria but also in other fevers. What is required is to bring the abnormal state into a normal condition. The rule is to remove the cause.

However Arkaadi Vati may be used as an expectorant and anti-septic and is particularly useful when Kapha is predominant.

Kumaaryadi Vati is particularly useful when Pitta is predominant. It is a mild laxative and stimulant to the heart

Seetamsu Rasa and Sudarsana Choornam bring the three Doshas to normal (Thri Dosha Haram).

Panchatikta Quatha Choornam is not only antiperiodic and antipyretic, it is also a carminative, digestive and tonic in small doses. The method of administration and dosage should be adjusted according to strength of the patient and of the Doshas.

TREATMENT OF DHAATUGATA JWARAS

Now the treatment for Jwara lodged in various Dhaatus is given. When Jwara is lodged in Rasa Dhaatu, Vamana, and Upavasa fasting are advocated; when lodged in Rakta Dhaatu, Seka (hot fomentation and baths with certain decoctions which are poured on the patient's bodies—(particularly parts of the body) and Pradeha (anointing the patient's body with medicinal pastes) and such other ameliorative (Samsamana) measures are to be taken; when lodged in Maamsadhaatu and Medodhaatu; Virechana and Upavaasa (here, Virechana should be preceded by proper Sneha and Sweda Karma) are to be done; when lodged in Asti and Majjaa Dhaatu, Nirooha and Anuvaasana Vasti (of course with proper Sneha and Sweda preceding) are to be carried out.

(Charaka-Chikitsa-Jwara—311, 312.)

DIETARY IN JWARA

In Taruna Jwara, proper Langhana only is to be generally observed, but when food has to be administered, following forms of diet may be given according to the Doshas:

Amlaabhilaashee Taameva
Daadimaamlaam Sanaagaraam
Srustaivit Poittiko vaadha
Seetaam Madhuyutaam Pibet.

(Charaka jwara-V. 178.)

LAAJA PEYA

Laajapeyaam Sukhajaraam
Pippaleenaagaraih Srutaam
Pibet Jwaree jwaraharaam
Kshudvaan Alpaagni raaditah

(Ibid-177).

Laajapeya-or the liquid diet prepared with Laaja (popped rice) and water, preferably mixed with Saindhavalavana, Pippali, and Sunthi may be given and pomegranate juice may be added to it if the patient likes to have the preparation sour. This is advised in all kinds of continued fevers, after a proper fasting has been done. In pitta fevers also, this may be given mixed with honey and not with Pippale and Sunthee.

LAAJAMANDA

Laajamanda both Peya and Manda are prepared with one part of Laaja and fourteen parts of water, well boiled for a considerable time. Manda is decanted or strained through cloth. Peya is unstrained (Generally Saindhavalavana, or rock salt may be added to taste.) Laaja Manda is especially useful in fevers when diarrhoea is present.

Laajamundo Laghu Grahi
Hrudyah Paachana Deepanah
Ateesaara Grahanyarsa
Rochako Ruktridoshanut

(Yogaratanakara—V. 16)

MANDA

Similarly, any food grains may be boiled with plenty of water to make a food. Raktasali, Yava (Barley) etc, may be used in this way. Aruna Datta says that Manda and Peya are prepared with Laaja (popped rice) only and not with food grains simply husked. See Vaagbhata, Sutra, Ch. 6. V. 25 commentary. This however does not seem to be the meaning of the authors as both Manda and Laajamanda are mentioned separately with qualities attributed to each. (See Charaka Sutra Ch. 246 to 300.)

VAATYA MANDA (BARLEY WATER)

Vaatyamando Yavai Bhrustaih
Laajamandasthu Saalibhih
Vaatyamando Laghurgraahee
Soola Daaha Thridoshanut
Navajwarepi Pathyoyam
Patola Magadhaanvitah

(Ibid. V. 15).

Vaatya Manda is Manda prepared with fried Yava (Barley) with fourteen times of water and decanted. If it is added with Pippalee and Patola it is said that it may be given even in Nava jwara (first eight days of fever.)

ASHTAGUNA MANDA

Tandulaih Ardha Mudgaamsaih
Kinchit Bhrustaih Supaachitaih
Hinga Sindhootha Dhanika
Taila Thrikatu Samskrutah
Jneyah Yoosta Guno Mando
Jwara Doshatrayaapahah
Raktakshudyardhanah
Praanaprado Vasthi Visodhanah

(Ibid).

Ashtaguna Manda-Rice 2 parts, green-gram 1 part. These two are to be fried and boiled in sixteen parts of water, strained and then seasoned with a little asafoetida, coriander seeds, Sunthee, Pippalee and Maricha suitably fried with oil and rocksalt is added to taste. This Ashtaguna Manda is useful in almost all jwaras including the normal Sannipaata jwara and it also maintains strength. It should not be thick.

Peyaa Sikthaanivitaa Toye
Chaturdasagune Krutaa
Peyaa Kukshi Gada Klaanti
Jwara Sthambhaatisaarajit
Ruchyagnikrut Laghuh
Doshamalaswedaanyeomancee

(Yogaratanakara-Siddhaana Paaka-Guna. V. 8.)

Peya or Yavaagu—These are prepared similarly, but Peya is usually prepared with the material (Laaja etc.) one part mixed with fourteen times of water. The difference lies in the thickness of the preparation. The preparation is not strained. Various preparations of Peya and Yavaagus are mentioned in the texts for use in various stages of diseases.

Generally speaking Peya or Yavaagu is advocated in Jwara when it is Niraama and when Vaata Dosha is the predominant one, Yavaagu or Peya should not be given when Kapha (or Pitta) are predominant.

(Peyaa Kapham Vardhayati Pankam paamsushu Vrishtivat-Astangahridaya Jwara-Treatment V. 69.)

MUDGA YOOSHA

Mudgaanaam Uttamo Yoosho
Deepanah Seetalo Laghuh
Vranordhva Jatru Rugdaaha
Kapha Pitta Jwaraasrajit.

(Yogaratanakara. Ibid. V. 2)

Greengram 1 part and water—usually 18 parts—well boiled (Rock salt may be added to taste, though this is not mentioned in the texts). Mudgayoosha is useful in Kapha Jwara and Pitta Jwara and even in normal Sannipaata Jwaras when Kapha or Pitta is predominant.

MUDGAAMALAKA YOOSHA

Mudgaamalaka Yooshasthu
Bhedanah Kaphapittajat
Truddaaha Samunah Seeto
Moorchaa Bhrama Madaapah

(Ibid. V. 3).

Mudgaamalaka-Greengram and Aamalakee (Dried Aamalakee is always available and may be used) well boiled with water (in all Yooshaas rocksalt may be added to taste). This is especially useful in Pitta type of fever.

DAADIMAAMALAKA YOOSHA

Daadnimaamalakaabhyaantu

Mudga Yooshah Susaadhitah

Pitta Vaata Harah Pathyo

Laghuragni Pradah Sarah

(Ibid. V. 3).

Daadimaamala Mudgaanaam

Yooshahaschaanila Paitike (Susruta-Jwara-Chikitsa. V. 1 8).

Daadimaamalaka Yoosha-Ripe Pomegranate juice and Aamalaka are added while preparing Mudga Yoosha. It is useful in Pitta mixed with Vaata type of fever. It is easily digested and promotes digestion.

KULUTTHA YOOSHA

Kuluttha Yoosha Gulmaarsah

Kapha Vaataasma Sarkaraah

Toonee Protoonjee Medaamsi

Maham Hanti Agnikrut Sarah

(Ibid. V. 5)

Yoosha similarly prepared with Kuluttha seeds (Horse gram) is useful in Kapha types of fever mixed with Vaata.

CHANAKAYOOSHA

Chanakaih Vihito Yoosha

Anushnah Tuvarakolaghuh

Rakta Pitta Pratisyaaya

Kaasa Pitta Kaphoapah

(Ibid. V. 6)

Chanakayoosha is prepared with bengal gram; it is useful in Pitta and Kapha types of fever. Besides it allays haemorrhage, nasal catarrh and cough.

MASOORA AND AADHAKKEE YOOSHA

Masoora Yooshah Sangraahee

Brumhee Swaaduh Pramehajit

Tathaa Kashaayo Madhurascha

Yoosha Vishano Vaatahrut

Aadhakeenaam, Pittaapah Sleshma

Haro Jwaraanaam Krumeennnee hanyaat

Gudadaaranamcha

(Yogaratanakara-V. 7, 8.)

Masoora Yoosha and Aadhakee Yoosha are similarly prepared with Masoora and Aadhakee seeds. Both are useful in Vaata jwaras (See Yogaratnakara).

Mudgayooshaudanaschaapi

Hitah Kapha Samutthite

Saevasitayaayuktah

Seetah Pittajware Hitah (Susruta-jwara-Chikitsa. V. 137.)

Mudga Yoosha is useful in Kapha jwara and it is also useful in Pitta jwara when it is mixed with sugar.

(Susruta. Ch. 39. 137)—Uttara Tantra.

Daadimaamalaka Mudga Yoosha-Yoosha with Daadima, Aamalakee and Mudga (greengram), is prepared in 18 times of water; it is useful in Vaatapitta fever.

(Susruta-Uttara Tantra Ch. 39, V. 133).

YOOSHAS WITH DRUGS

Hrasvamooolaka Yooshasthu

Vaatasleshmadhike Hitah.

(Susruta-jwara-Chikitsa V. 132)

Hrasvamooolaka Yoosha :— Yoosha prepared with Laghumoolaka is useful in Vaata Sleshma type of fever, (greengram may be added to Laghumoolaka).

PATOLA YOOSHA

Patola Nimba Yooshastu

Pathyam Pitta Kaphaatmake (Susruta-jwara-Chikitsa V. 139)

Yoosha prepared with Patola Patra, green-gram and water (usually 18 parts to that of the material,) is useful in Pitta kapha fever.

NIMBA YOOSHA.

Tender Margosa leaves, greengram and 18 parts of water well boiled and strained is useful in Pitta kapha fever. Aamalaki, Daadima, salt and spices may be added to taste.

PANCHAMUSTIKA YOOSHA

Yoosha prepared with Yava, Kola, Kuluthe, Mudga, (green-gram) and Moolaka each a handful, well boiled in 8 times of water. It is useful in Sannipaata fever especially when there is pain, cough, dyspnoea (Chakradatta and Yogaratnakara—fever-264.)

SAPTHAMUSTIKA YOOSHA

Similarly, Yoosha prepared with Kulutha, Yava, Kola, Mudga, dried chips of Moolaka, Sunthi and Dhaanyaka:—useful in Sannipaata jwara and in fevers with Vaata or Kapha predominance:-(265.)

COOKED VEGETABLES (Vegetable Curries)

Patolapatram Saphalam
Kulakam Paapachelikaam
Karkotakam Katillakam
Vaadyaat Saakam Jware Hitam

(Charaka-jwara-Chikitsa. V. 187)

Similarly Patolapatra, Patolaphala, Katilla, Paapachelika, Karkotaka, Parpataka, Gojihwa, Guducheepatra, Kulaka, Vaartaaka, these Saakas, tender leaves or vegetables prepared as curries are useful.

Patola Patram Vaarthaakam
Katillam Paapachelikaam
Karkotakam Parpatakam
Gojihvaam Baalamoolakam
Patram Gudoochyaah Saakaarthe
Jwaritaanaam Pradaapayet.

(Susruta Uttara-Ch. 39. V. 151 and 152)

So also Tanduleeyaka, Vaastuka, Balamoolaka (Tel. Mullangi), Tiktasaaka, Guducheepallava, Kalasaaka, Nimbapushpa (flowers of Margosa, even dried), Maareesha, Darvikaadala, jeevantee, Chaangeri, Sunishannaka and Aavika.

RICE

Tanduleeyuka Vaasthooka
Balamoolaka Parpataan
Patolam Tikta Saakamcha
Gudoochee Pallavaanyapi
Kaala Saakam Nimba Pushpam
Maareesham Daarvikaadalam
Jeevantee Chaapi chaangeree
Sunishannakamaalikaih
Patra Saaka Priyaanamtu
Jwaritaanaam Pradaapayet (Yogaratanakara-Jwara Padhyaani).

Rice which is atleast one year old (i. e.), husked from paddy which is kept for atleast 2 years after harvest is preferred for diet in fevers. (Vataroshita Dhaanyasya Tandulaandho Jwara Hitam—Yoga Ratnaakara.)

Vaagbhata says that rice should be boiled along with suitable drugs without losing its flavour. (See Vagbhata-jwara V. 73)

Odanah taih Sruto
Dvisthrih Prayoktavayo Yadhaayadham
Dosha Dooshaadi Balatah
Jwaraghna Kvaadha Saadhitah

Astaanga Hridaya-jwara-chik. V. 73)-

Rice about 2 years old, is preferred for making bread. This bread may be given in small quantities.

WHEAT

Godhumaadi Yadta Saatmyam
Anyadapyalapa marpayet

(Yogaratanakara-Jwara Padhyani V. 8).

Godhuma (wheat) etc., may be given if it is Saatmya (habit) to the patient. Any food which is Saatmya may be given in small quantities.

BUTTER - MILK

Takra or butter-milk may be given, preferably, mixed with Thrikatu in fevers, especially when there is Kapha and anorexia

(Savyosham Vitaret Takram Kaphaaroachaka peedite - Susruta - Jwara V. 143).

MILK

*Vibaddhah Srusta Doshascho
Kookshah Pittanilajwaree
Pipaasaarthah Sadaahhovaa
Pavasa Sa Sukhee Bhanet*

(Ibid. 144).

Milk is strictly forbidden in Taruna (nava) jwara (expect. of course, in Vaata jwara and Niraama jwara). It is said that it kills the patient like poison, if is taken in Taruna jwara (Tadeva Tarune Peetem Vishavat Hanti Maanavam-Susruta). But, milk is extolled as a nectar in Jeerna jwara, especially when Vaata and Pitta are predominant.

*Daahathrishnaa Pareetasya
Vaata Pittottaram Jwaram* (Charaka-Jwara-Chik. V. 165).

In such cases, milk just drawn (Dhaaroshnam) is also advocated. It is the special Prabhaava of the freshly drawn milk, that is important and not the nutritive value relatively to the quantity of milk taken in.

*Samskrutam Seeta mushnam Vaa
Tasmaat Dhaaroshnamevava
Vibhajya Kaala yamjeeta
Jwarinam Hantyatonyathaa*

Astanga Hrudaya-jwara. Chik. V. 107)
(See also Charaka V. 234).

In Jeerna jwara with Vaata Pitta predominating and with certain symptoms like thirst, burning sensation persisting, milk, medicated with various drugs is advocated to allay those symptoms immediately. (Vaagbhata V. 108. see also Charaka jwara V. 230 etc..)

*Payah Sasuntee Kharjura
Mrudvee Kaasarakaraa Ghrutham
Srutee Segtam Madhyutam
Twak Daaha Jwara Nasanam*

(Astanga Hrudaya-jwara Chi. V. 108)

BREAST MILK

In Andhra Desa, breast milk is also given as food for fever patients usually in severe cases. Breast milk is also considered as medicine in fever. (See Satasloki). (Jeevanam Brimhanam Saatmyam Snehanam Maanusham Payah. "Charaka"). Breast milk is useful in Vaatapitta types of fevers.

COCONUT WATER

Snigdham Swaadu Himam Hridyam deepanam Vastisotdhanam, Vrishyam Pittapipaasaaghnam Naarikelodakam Laghu. (guru) (Susruta. Sutra Ch. 45 & 43).

Susruta gives the properties of coconut water as follows:—Coconut water is Snigdha, sweet (Swaadu), cool (Hima), Hridya (pleasing), appetiser (Deepanam), Vasti Sodhana (purifier of Vasti or bladder), Aphrodisiac (Vrishyam); it controls Pitta and thirst, and it is Guru (heavy); Light (laghu) is another reading by a commentator—Jajjata. Dalhana reads it as Guru. Usually sweet, cool and Snigdha articles are Guru (heavy). But, he himself quotes in his commentary, that Jajjata, another commentator of Susruta Samhita, has read it differently as Laghu. Vaagbhata reads in his book as Laghu and Arunadatta says that coconut water is Laghu and the fact is inexplicable (Prabhaava). The point is that substances with Guru guna are usually forbidden in jwara. But as coconut water is considered as a medicine in Jwara used (Sathasloki) by its virtue (Prabhava), it may be useful in Jwara. As there is difference of opinion, it may be used in fevers with caution. Old wines etc., are advocated along with food especially with Yava (barley) in patients with feeble digestion. (Madyam Mandaagneh Yavaanno aphitam Hitam-Susruta-Jwara 142).

GHEE

Ghee—In Vishama jwaras and Jeerna jwara, ghee is very much advocated especially cow's ghee; medicated ghee, of course, comes under the category of medicines.

LIGHT FOOD IN SMALL QUANTITY AND AT PROPER TIME

Any food prepared in the light of the above instructions may be suitably given; various combinations of cereals, food grains, meat juice, spices and drugs may suitably be devised and grouped by an intelligent physician. In devising such a formula, the qualities of each ingredient according to the Rasa Veerya, Vipaka, and Prabhaava, should be borne in mind; and the preparation as a whole should be suited to the patient, according to his Agni, Saatmya, Dosha Dooshya, Kaala etc. All these preparations should be given in the usual Annakaala of the patient (his usual time of taking food) and not indiscriminately. In Vishama jwara, however, the food is to be given, when the acute attack has subsided or when there is no fever.

In all fevers including Vishama jwaras, light food in small quantities is advocated by Susruta after the acute attack has subsided.

Sarwajwareshu Sulaghu, Maatraavat, Bhojanam Hitam vegaa-paayee, Anyathaa Thaddhi jwaravegaabhi Vardhanam-Susruta jwara 145.

He should not eat heavy, indigestible food nor in unusual periods.

(Guru Abhisyanidi Akaalecha Jwarec Na Adyaat Katham chana) Susruta Jwara V. 148.

DRUGS USED IN JWARA

Mustaa - Parpata - Dhanvayaasa
Dhanikaa - Bhoonimba Visivaamritaa
Mridveekaa - Dasamoola - Nimba -
Sahadavyaaragwadha - Vyaadhyah
Sevya - Ambhah - Sunishanna - Chandana
Balaa - Paataa - Varee - Saaribaa
Kharjooraa Triphalaa - Madhur
Yavanikaa - Chaaswatthajam Valkalam (Satasloki V. 1.)
Raosnaa - Nirjaradaaru - Chavya
Chapalaamoolaani - Murwaa - Utpalam
Manjishtaa - Kanavenupatra - Katukaa
Bhaargee - Patola - Stathaa

Stanya - Kshonibhujanga
Pushyalathikaa Rudraaksha - gorochanaa
Vasaa - Kerajala - Aajya - Vatsaka
Sitaa - Sarvaani - Nihanti - Jwaraan (Ibid V. 2)
Paathaa - Daarvi - Mahabalaa - Thrikatukaa
Ajaajee - Rasonaa Stathaa
Vishnukraanta - Sinaadikaa
Grihabhavodhoomah - Tulasyaadwayam
Naarangasya Salaatu -
Patramaralutwak - Patra - Nirgundikaa
Bhaarngee - Pakwa Vataa gadaascha
Sakalaan Seeta Jwaraan Naasayet. (Satasloki V. 3)

MEDICINES

They are divided into 2 classes:—(1) Those used in any kind of fever and (2) those used only in Seeta jwara.

(1) Drugs generally useful in any kind of jwara.—

Musta, Parpatak, Dhaanwayaasa Dhaanykam, Kiraatatikt, Sunthee, Guduchee, Draaksha Dasamoola, Nimbaa, Sahadevi, Aaragwadha, Kushta, Sevya, Udeechya (Hreebera,) Sunishanna, Chandana, Balaa, Paathaa, Sataavari, Saaribaa, Kharjoora, Thriphala, Yashtimadhu, Yavaanika, bark of Aswatha, Rasanaa, Devadaaru Chevya, Pippalimoola, Moorva, Utpala, Manjishta, Pippalee, Venupatra Katukorohinee, Bhaarngee, Paatola, Breastmilk, (Satanya), Kshonibhujanga (earth worm), Pushyalataka, Rudraksha, Gorochana (ox-bile) Vaasaa, Coconut water, Aajya (Ghee), Vatsaka and Sita (Sugar)-Verses 1-2.

Drugs useful in Seetha Jwara, i.e., jwaras commencing with chill or attended with chill are:—

Paathaa Daarvee, Mahaabalaa, Trikatu, jecrakam, Rasona, Vishnukraanta, Sinaadikaa, Grihabhavadhooma (Tel Karidhoopam)-two kinds of Tulasi, Orange nut, Orange leaves, Aralu twak, (Syonaaka), Patraka, Nirgundi, Bhaarngi and ripe Banyan leaves-Verse 3.

Medicines (Recipes) generally useful in fevers. (Antipyretics),

Abhaayadi Quaatha Choornam, (See Hundred Recipes by the Editor-P.1. for composition, dose and instructions), Dasamoola Quaatha Choornam (H. R. P. 2.), Panchatikta Quaatha Choornam

(H. R. P. 5.), Useeraadi Quaatha Choornam (H. R. P. 5.) Sudarsana Choornam (H. R. P. 17), Taleesaadi Choornam (H. R. P. 19), Agnitundi Vati (H. R. P. 22), Anandabhairava Rasa Vati, (H. R. P. 23.), Jwaraankusa Rasa Vati (H. R. P. 29), Lakshmivilaasa Rasa Vati (H. R. P. 33), Mrityunjaya Rasa Vati (H. R. P. 34), Panchavaktra Rasa Vati, (H. R. P. 37), Seethaamsurasam (H. R. P. 39), Vaatagajaankusa Rasam (H. R. P. 42). Kiraathaarishtam, (H. R. P. 46), jeerakaadi Arishtam (H. R. P. 49), Dasamoolaarishta (H. R. P. 49.), Draakshaarishta (H. R. P. 51). Vaasaarishta (H. R. P. 53), jambeeraadi Paanakam (H. R. P. 56), Panchatikta Paanakam (H. R. P. 59), Laakshaadi Thailam, Chandanaadi Thailam, Sannipaatabhairava rasa, jwaraankusa Rasam, Baala Suryodaya Rasam, Kanakabaalasoorayodaya rasam, Tibhuvana-keerti Rasam, Soothikaabharana Rasam. Kaalakoota Rasam, Vaatavidhwamsinee Rasam, Soochikaabharana Rasam, jwaramuraari, Bhēdijwaraankusam, Simhaprateepaalana Rasam, Vaataraakshasa Rasam, Kaphari Kalpa, Mahalakshmvilaasarasam, Makaradhwaja, Swachchandabhairavi Rasam, Sindoorabhooshana Rasam, Sooryavarti, Mahaajwaraankusa Rasam, jayamangala Rasa, Kasturibhairava Rasa, Navagrahi, Prataapalankeswara Rasam, Shatpala ghritham, Panchatikta ghritham, Amritaadi ghritham etc. (Yogaratraakara).

MEDICINES USEFUL IN VISHAMA JWARA

Panchatikta Quaatha Choornam (H. R. P. 3) Sudarsana Choornam (H. R. P. 17), Seetaamsurasa Vati (H. R. P. 39), Vaatagajaankusa Rasa, Seetaamsurasa, jwaraankusa Rasa, Mahaajwaraankusarasam, Navagrahi, Makaradhwaja, Mahaabaalasasoorayodaya Rasam, Paasupataastra Rasa, Mahaapaasupataastra Rasa, Rasachintaamani, Paashaanachintaamani, Vishamajwaraantaka Loham, Pleehaantakarasarasam, Raamabaanarasa, Tarunaarka Rasa, Mahaatarunaarka Rasa, Swarnasoorayaavarti, Seetabhanjana Rasa, Arkaadi vati, decoction of Tulasi with pepper and jaggery, Kumaatyaaadi Vati, Nirgundi decoction with pepper and jaggery, drugs like Hraswa Panchamoola, Brihat Panchamoola, Panchakola, Triphala Trikatu, Guduchi, Arka, Kuberaaksha, Lasuna, Kiraata tikta, Pippalee, Karanja, Vishamushti-(bark, root or wood), Dronapushpi, Vishnu- kraanta, Bhringaraaja and Bhloodhaatri etc.

Any one or more of the above drugs prepared medicines may be used by the physician according to his experience. The method of using the medicines is more important than the medicine itself. Medicine is a double-edged sword. If it is not used skillfully, it is likely to do harm.

IN VAATA JWARA

As Aama Dosha is likely to get itself mixed with the causative Dosha, or Doshas, of the fever, it is necessary in most cases to give a Paachana medicine after a proper Langhana (fasting extending to one or more days). This Paachana usually sets right the whole disorder. If there is no Aama Dosha, no fasting or Paachana is necessary. Thus, in a case of fever unaccompanied by Aama Dosha, for example, Vatajwara, Langhana is prohibited. Anti in Vata drugs may cure the trouble and the patient is allowed some suitable diet (usually Yavaagu or Maamsa Rasa). A few of the following recipes are extracted from text books for guidance.

Paachana :—(1) Guduchee, Pippaleemoola, and Sunthi-decoction prepared with these three :—(Yogaratraakara-Jwara Chikitsa).

(2) Mahaa Panchamoola-decoction (Chakradatta).

Amelioratives in Vaata Jwara :—Pippalee, Saaribaa, Draakshaa, Satapushpa and Harenu—decoction of these drugs mixed with guda- (Susruta-Jwara-Chikitsa-V. 169)

Infusion of Gudoochee (pulp of Gudoochee) put in hot water, kept for about 2 hours and then strained, is useful in Vata jwara (Susruta 170). Bala, Darbha and Gokshura—Decoction with one part of drugs with four parts of water; reduced to one fourth is useful in Vaata jwara. (Ibid V. 170-17).

Along with above decoctions, Vaatavidhwamsini, Mrityunjayarasa etc., may be given with advantage.

IN PITTA JWARA

Paachana :—

Katphala, Indrayava, Ambasthaa, Katukarohini, Mustaa-decoction prepared with these drugs forms a good Paachana (Yogaratraakara).

Katukarohini, Musta and Indrayava-decoction of these drugs mixed with honey forms good Paachana (digestive) in Pitta jwara-Chakradatta.

Ameliorative :—

1. Decoction of Parpataka alone may suffice.
2. Decoction of Parpataka, Chandana, Useera and Dhaanyaka-(Yogaratraakara).

Ehah Parpatakah Sreshtah

Pitta Jwara Vinaasanah

Kim punaryadi Yujyeta

Chandanoseera Dhaanyakaih (Yogaratraakara-V. 3.)

3. Sreeparnee, Chandana, Useera, Parushaka and Madhuka-Decoction of these mixed with sugar candy to sweeten, is useful-(Susruta—V. 175).

4. Decoctions of Saaribaadigana-(Susruta-Jwara Chikitsa V. 176).

5. Decoction of Utpalaadigana-(Yogaratraakara)

6. Gudoochee, Padmaka, Rodhra, Saaribaa, Utpala—Decoction of these mixed with sugar.

If the thirst is very intense and uncontrollable in Pitta jwara, then cold water mixed with honey (nearly equal parts), should be taken in and vomited.

7. Gudoochee Satwa mixed with sugar candy. Yogaratraakara Jwara V. 5.

8. Draksha, Hareethaki, Parpataka, Musta, Katukarohini and Aaragwadhapala-Decoction is useful in Pittajwara attended with delirium, stupor, vertigo, burning, dryness and thirst. Yogaratraakara-Jwara. V. 3.

9. Decoction of Gudoochee, Aamalaka and Parpataka. (Yogaraatnakara).

IN KAPHA JWARA

Paachana :—

Aamalakee, Abhayaa, Pippalee and Chitraka made into a decoction.

Amelioratives :—

1. Decoction of Dasamoola and Vaasaa. (Chakradatta.)

2. Musta, Indrayava, Triphala, Katukarohini and Paroshaka-decoction Ibid.

3. Decoction of Saptaparna, Gudoochee, Nimba and Sphoorajaka (Phanijjaka) mixed with honey(Susruta V. 186.)

(4) Trikatu, Naagakesara, Haridraa, Katukarohini, Kutaja beeja-decoction. (Susruta V. 187).

(5) Haridraa, Chitraka, Nimba, Useera, Ativishaa, Vachaa, Kushta Indrayava, Morva, Patola and Maricha—decoction mixed with honey. (Susruta V. 189).

(6) Saariba, Ativisha, Kushta, Guggulu, and Duraalabha-decoction. (Susruta V. 190).

(7) Bhoonimba, Nimbaa, Pippalee, Sati, Sunthi, Sataawaari, Gudoochee, Brihatee-decoction. (Yogaratraakara-kapha Jwara)

IN VAATA PITTA JWARA

(1) Gudoochee, Parpataka, Musta, Bhoonimba and Sunthi, called Panchabhadra-decoction-useful in Vaata pittajwara. (Yogaratraakara).

(2) Triphala, Kaasmaree, Raasnaa, Aaragwadha and Vaasaa-decoction-useful in Vaata pitta jwara. (Yogaratraakara).

(3) Kiraatatikta, Gudoochee, Draakshaaa, Aamalaka; Sati—decoction mixed with jaggery in Vaata pitta jwara. (Susruta-jwara. V. 199).

(4) Raasna, Vaasaa, Triphala, Aaragwadha phala-decoction. (Ibid V. 200).

(5) Triphala, Saalmali bark, Raasnaa, Aaragwadha and Vaasaa-decoction-Chakradatta.

VAATASLESHMA JWARA

(1) Decoction of Panchakola.

(2) Decoction of Pippalee.

(3) Decoction of Musta, Parpataka, Sunti, Gudoochee and Duraalabha-decoction. (Chakradatta.)

(4) Decoction of Devadaaru, Parpata, Bhaarngi, Mustaa Vachaa, Dhaanyaka, Hareethaki, Sunti, Yamaanee-Decoction-mixed with Hingu-(Asafoetida) and honey-useful in Kaphajwara, especially when attended with hiccough, dyspnoea, choking sensation in the throat (Galagrah), cough etc. (Charadatta).

IN PITTA-SLESHMA JWARA

1. Decoction of Patola, Chandana, Moorva Katukarohinee, Pathaa, and Gudoochee. (Chakaradatta).
2. Decoction of Gudoochee, Nimba, Dhanyaka, Padmaka, and Chandana. (Ibid).
3. Kiraata, Nimba, Sunti, Musta and Gudoochee—decoction in Pitta-sleshma-jwara with Kapha predominating.
4. The preceding decoction (No. 3) along with Paatha and Udeechya (Hreebera) in Pitta Kapha jwara when Pitta predominates.
5. Decoction of Patola, Nimba, Triphala, Yashtimadhu and Bala—in Pitta kapha jwara. (Yoga Ratnaakara-Pitta Slesma Jwara V. 4).
6. Katukarohinee, Useera, Bala, Dhaanyaka, Parpataka, Musta-decoction (Yogaratanakara). It is also useful even in a relapse.
7. Kantakaari, Gudoochee, Bhaarngi, Sunti, Indrayavaa, Vaasaa, Bhoonimba, Chandana, Musta, Patola, Katukarohini,—Decoction—(Ibid).
8. Raktachandana, Padmaka, Dhaanyaka, Gudoochee, Nimba—decoction. It also allays, in addition to fever, burning sensation, thirst, vomiting and promotes appetite.

IN SANNIPATA JWARA

In ordinary Sannipaata jwara i.e., mixed fevers characterised by symptoms of three Doshas, the drugs should be selected and mixed so as to check the predominant Dosha or Doshas. In all such cases, the predominant Dosha should be recognised and dealt with.

*Sarvadosha Samuthetu
Samsrustaan Avachaarayet
Yadhaa Doshochhrayam
Chaapi Jwaraan Sarvaan upaacharet.*

(Susruta-Jwara-Chi. V. 201).

The following recipes are given as models which may be useful in ordinary Sannipaata fevers not attended with complications.

- (1) Haridra, Bhadramusta, Triphala, Kutukarohini, Nimba, Patola, Devadaaru, and Kantakaari-decoction—(Susruta V. 205,206)
 - (2) Dasamoola-Kashaaya-(Chakradatta).
 - (3) Sati, Pushkaramoola, Kantakaari, Karkatasringi, Duraalabha, Gudoochee, Sunti, Paatha, Kiraatatikta, and Katukarohini-decoction - (Chakradatta).
 - (4) Trivruth, Visaala, Triphalaa, Kiraatatikta and Katukarohini, Aaragwadha-decoction mixed with Yavakshaara may be given in Sannipaata jwara or in any jwara to open the costive bowels at the proper time i.e., in pakwa stage—(Chakradatta).
 - (5) Trikatu, Musta, Triphala, Katukarohini, Patola, Nimba, Vaasa, Bhoonimba, and Duraalabha-decoction—(Chakradatta).
 - (6) Brihatyaadi gana—(Charaka Jwara. 163).
- Kantakaari, Brihati, Sunti, Dhaanyaka, Devadaaru—decoction; it is a Paachana, useful in any kind of fever, i.e., any fever, where symptoms may be so scanty or mixed as not to give a clear Doshic picture.

In complicated Sannipaata types of fevers also the above are useful; additional measures like proper Langhana, Vaaluka Sweda, Anjana etc., as well as the most appropriate diet, such as Yoosha, Maamsarasa etc., suitable according to the predominant Dosha or Doshas of the Sannipaata fever are advocated.

Astaadasaanga Kasyaaya (Yogaratanakara).

Bhoonimbaadi (Ibid), Dwaatrinsadanga Kashaaya (Ibid), Daarvyaadi Kashaaya, Grandhyaadi Kashaaya (in Kapha pradhana Sannipaata) and many such others are advocated in Yogaratanakara and other texts.

Besides these, many recipes are mentioned in special types (Syndromes) of Sannipaata jwara, such as, Sandhika, Rugdhaaha etc., which may be referred to.

IN AAGANTU JWARA

In all Aagantu jwaras, the decoctions aforesaid may be given, if necessary, along with the appropriate treatment after a clear knowledge of the Doshas underlying the diseases.

In Abhighaata jwara, ghee (medicated or simple) along with decoction of sweet drugs like Yastimadhu, Draaksha etc., is useful.

In Bhoota jwara, Anjana (collyrium) with fine paste of Sireeshabeeja, cow's urine, Maricha, Saindhavalavana, Pippalee, Vacha and Garlic is advocated as it mitigates stupor (Samgnaa Prabodhanam—Yoga-ratnaakara).

VISHAMA JWARA AND JEERNA JWARA

In Jeerna jwara or persisting fever (hectic fever) from any cause.—

1. Decoction of Kantakaari, Sunthee, Gudoochee, and Pippalee. (Chakradatta)
2. Or the decoction of Gudoochee mixed with the powder of Pippalee
3. Or the decoction of Brihat Panchamoola mixed with Pippalee choornam or Guda pippalee along with proper Ghritaapana Nirooha vasti or Virechana.

Many Ghritas, such as, Pippali Ghritam (Charaka), Vaasaa Ghrita (Susruta), Balaadyaani Ghrita, Gudoochyaadi Ghrita (Susruta), Patolaadi ghritam (Ibid) etc., are advocated. They may be used along with Makaradwaja etc.

A Nirooha vasti (Enema) prepared as follows may be useful in any persistent fever.

Patola, Nimba patra (leaves), Useera, Aaragwadha, Hreebera, Raktachandana Katukarohini, Gokshura, Madanaphala, Sthira, Bala, with four parts of milk and two parts of water, and boiled till water evaporates and the milk only remains. Honey and a little ghee is to be added and mixed well and filtered. To this a fine paste (Kalka) of Madanaphala, Musta, pippali, Yeshtimadhu and Vatsakabeeja is to be mixed and stirred into a homogenous mixture which is given as an enema.

*Patolaarishtapatraani Soseerah chaturangluah
Hreebaram Rauhinam Tiktaa Swadamtsraa
Madanaanicha*

(V. 237)

*Sthiraa Bala cha Tatsarvam
Payasyarthodake Srutam
Ksheeravaasesham Niryooham
Samyuktam Madhu Sarpisha*

(V. 238)

*Kalkair Madana Mustaanaam
Pippalyaa Madhukasyacha
Vatsakasyacha Samyuktam
Vastim Dadyaat jwaraapaham*

(Charaka-Chik—Ch. 3 V. 237-239).

Many other recipes for Vasti are given; the recipes given in Siddhisthaana (Charaka) may also be used. A Niroohavasti is to be used in jeerna jwara, especially when the patient is weak, as a purgative is forbidden under such circumstances.

*Proyojayet Jwaraharaan, Niroohaana Saanuvasanaan
Pakvaasayagate Doshe: Vakshyante yeeha Siddhishu*

(Charaka-jwara-V. 236).

Ghee medicated with Patola, Nimba, Gudoochee, Yashtimadhu and Madanaphala.

*Patola Pichumandaabhyaam
Gudoochya Madhukenaacha
Madanaishcha Srutah*

Sneho Jwaraghnamanuvaasanam (Charaka-jwara-V. 248)

Or ghee medicated with Chandana, Agar, Kaasmarya, Patola, Yashtimadhu, Utpala, may be used as an Anuvaasana Vasti.

*Chandanaaguru Kaasmarya
Patola Madhukotpalaih
Siddhah Sneho Jwaraharah
Snehavaastih Prayujyate.*

(Charaka-jwara V. 249)

ABHYANGA

*Abhyangaamscha Pradehaanscha
Parishekaamscha Kaarayet
Yathaabhilaasham Seetoshnam
Vibhajya Dwividham jwaram.*

(Charaka-jwara-V. 252).

For Abhyanga, when there is much burning sensation during the course of any fever, Chandanaadi Tailam (Charaka-Jwara), Satadhouta Ghritam and Sahasradhouta ghritam are advocated. If there is much chill or coldness, affecting a part or the whole body

causing considerable suffering, Aagarvaadi Tailam (Charaka-fever) is useful for Abhyanga. In addition, Sweda karma, Dhoopana (fumigation) with suitable drugs are also helpful.

VISHAMA JWARA

In Vishama Jwara, in addition to the medicines already given in the list, the following measures are recommended. Taking Bhallaa-thaka every day, taking Lasuna (garlic) every day before breakfast; Nasyakarma with Asafoetida tiger's fat and Saindhava Lavana; Anjana with Saindhava, pippali and Manassila well ground with gingelly oil, and various kinds of Dhoopana are advocated in obstinate cases. Tiktaka Ghrita, Mahaatiktaka ghrita and such other ghrithas, which are advocated in jeerna jwara are also useful in Vishama jwara. It should be noted that jeernajwara and Vishama jwara may be treated alike.

1. Kalingaka, Patolapatra, Katukarohini-decoction in Santata jwara.

2. Patola, Saaribaa, Mustaa, Pathaa and Katukarohini-decoction useful in Santata jwara.

3. Nimba, Patola, Triphala, Draakshaa, Musta, Vatsaka-decoction useful in anyedyuska jwara.

Kiraatatikta mamrutaa

Chandanam Visvabheshjam

Gudoochyaamalakam Mustam

Artha Slokasamaapanaah (Charaka-Chik-Ch. 3 V. 200)

4. Kiraatatikta, Gudoochee, Chandana, Sunti-decoction useful in Triteeyaka jwara. (Charaka jwara. V. 189).

5. Gudoochee, Aamalaka Musta-decoction useful in Chaturdhaka jwara. (Charaka-jwara. V. 198-200)

Vaasaa Patola Triphalaa

Draakshaasamyaka Nimbajah

Samadhuh Sasitah Kvaadhah

Hanyaat Yekaavokam jwaram.

(Yogaratanakara-Vishama-jwara. V.9).

6. Vasaa, Patola, Triphala, Draakshaa, Aaragwadha and Nimba-decoction useful in Santata jwara. (Yogaratanakara-Vishama jwara. V. 9)

Traayamtee Katukaanantaa

Saaribaahih Srutam jalam

Santataakhye Jware Deyam

Vaataa Deenah Nivroutaye

(Ibid. V. 7)

7. Traayantee, Katukarohini, Duraalabha and Saaribhaa-decoction is useful in Santata jwara (Remittent fever). (Ibid. V. 7).

Draakshaa Patola Nimbaabda

Sakrahva Thriphala Mrutaah

Jalam Jantuh Pibet Seetha

Anyedyurjwari Saantaye.

(Ibid. V. 11).

8. Draaksha, Patola, Nimba, Musta, Indrayava, Triphala, Gudoochee-decoction is useful in Anyodyushka jwara. (Ibid. V. 11)

9. In Vishama jwara, the following combination of food is recommended. Ghee, honey and boiled milk, in equal parts along with the powder of Pippalee and white sugar candy-it is called 'Panchahara'. (Ibid. V. 17)

Sarpah Kshaudram Sruttam

Ksheeram Pippalyah Sita Sarkaraa

Pibet Khajena Madhitam

Panchasaarameti Smrutam

(Yogaratanakara-Vishama-jwara-Chik V. 17).

10. 'Vardhamaana Pippalee'—A Vishama jwara patient, especially with Vaata and Kapha predominating, may try with advantage the following procedure. He should daily take three or five or ten bits of the Pippalee nuts well powdered once in a day. It should be repeated on the following days also and after a week this daily dose should be doubled and continued for another week and next that dose is again doubled after one week and so on. Thus, it is to be increased every week for some time till the daily dose reaches a maximum of 100 to 200 nuts a day; when the maximum daily dose is reached this dose should be maintained for some time, and then it should be gradually decreased; the decrease being as gradual and graded as the increase. In the whole course, the patient should be on strict milk diet along with the other necessary precautions as regards his personal conduct etc. This is a form of Rasaayana

treatment and it is advocated in Vishama jwara also (obstinate cases) where rejuvenation is also desired by the patient (Yogaratraakara).

Kshaerena Pipaleeh Bhuktvaa

Ksheeraahnam bhujyate yatah

Dasaaham Pancha Vruddhi Syaat

Apakarshah Vadhaivacha-Iti vardhamoanah

(Yogaratraakara-Vishama jwara-V. 16.)

11. Musta, Aamalaka, Gudoochee, Sunti, Kantakaari-decoction mixed with the powder of Pippalee-useful in Vishama jwara in general (Yogaratraakara).

12. The fresh juice of Tulasi leaves mixed with pepper powder or the juice of Dronapushpee mixed with Maricha and Gudam is also useful in Vishama jwara. (Yogaratraakara).

13. Jeeraka, Lasuna, Thrikatu and Paathaa made into paste may be taken without water before an attack of rigor (Yogaratraakara).

Many other recipes as decoctions, pills, powders, Ghritas and Lehas etc., may be referred to in the classical text books. Or, an intelligent physician conversant with the minute properties or qualities of anti-vishama jwara drugs may devise prescriptions according to the tenacity of the disease and local availability of the drugs, both fresh and dry.

SUMMARY

Now we have to summarise the essentials of treatment in any case of Jwara.

1. In all initial stages of fever, Langhana or fasting should be observed for one or more days according to the virulence of the Doshas without loss of strength that is caused thereby, in which case suitable diet should be immediately administered.

2. An emetic may be given in the initial stages if there is much loose Kapha in the stomach, as may be known by spitting of mucous etc.

3. Administering Paachana medicine along with suitable diet (Yavaagu in Vaata; Yusha in Pitta and Kapha forms) after a proper Langhana is finished, or along with Langhana in exceptional cases.

4. Swedakarma may be done in Vaata, Kapha and Vaata-Kapha types.

5. In fevers, which still persist, Niruhavasti may be given; Nasya, Dhoomapaana, Anjana etc., usually form advantageous adjuncts.

6. If fever further persists, a purgative may be given if the patient is strong; if the patient is weak, never give a purgative, Niruhavasti with medicated milk is the safest measure.

7. Give ghee, especially medicated, in Jeerna jwara, provided the Agni of the patient is good or Anuvaasanavasti may be given in predominating Vaata forms of fever

8. Never give indigestible or solid food in any form of fever; exercise, fatigue, sexual intercourse, plunge baths etc., are strictly forbidden in Nava jwara. Abhyanga with suitable Thaila or Ghrita is helpful in Jeerna jwara or even in Taruna jwara when Aama Dosha is not present. Light foods like old rice, and various Yooshas are to be taken in the course of fever and convalescence; Maamsarasa may be given, in addition, to non-vegetarians.

9. The rules of personal hygiene should be strictly followed in all fevers, be the fever Typhoid, or Pneumonia, or Malaria or any other fever with inflammation located in any part of the body, such as, Nephritis, Meningitis, Endocarditis etc.

10. In all these cases the treatment of fever indicated above is to be generally followed.

THE THREE FACTORS CONTRIBUTING TO RESISTANCE TO DISEASE

The three factors namely :—(1) the Nidaana, (2) the Dosha and (3) the Dooshya contribute to the power of resistance possessed by any individual to fever or in fact any disease.

"Iha Khalu Nidaana Dosha

Dooshya Visethebhyah Vikaara

Vighaata bhaavaabhaava

prativiseshaah bhavanti"

(Charaka-Nidaana-Chap. 4.L. 4).

(See Principles of Pathology by the author P. 70)

The three factors may help each other either to increase the disease or may contradict each other to promote power of resistance. (Parasparam naanubadhnanti Adhavaa Anubhadhnanti).

(1) **The Nidaana** ; The Nidaana includes all causes that contribute towards the attack of disease, including virulence of the infection by the microbe, irregularity in diet, injuries etc. (Midhyaayoga of Kaala, Artha and Karma).

(2) **The Doshaas** : The degree of vitiation of the three Doshas and their relative predominance.

(3) **The Dooshya** : The condition of the cells and tissues and organs, which happen to be the seat of the disease.

One or more of these three factors may be powerful by virtue of individual circumstances, such as, Saatmya (habit) and Satwa (Soul force or mental fortitude). If there is inco-ordination, as for instance, when the causes are weak and the tissues are strong, the disease may be mild, may not exhibit any symptoms attributed to the disease, or may only show a few symptoms, or the disease may take very long time to develop and if the disease develops at all the patient is likely to recover. If, on the contrary, the causes are powerful and the association of the other two factors, namely, the condition of the nutrients and of the tissues (Doshas and Dooshyaas) is also unfavourable, the disease may start virulently and may exhibit the full symptoms attributed to it and may cause death. (Charaka-Nidaana-Ch. 4. Vol. 6). Every disease including Sannipaata Jwara may be prevented by avoiding their respective causes and their course may be checked by applying contrary processes which antagonise the three factors, contributing towards resistance to disease, namely, the Nidaana, Dosha and Dooshya.

The vitiation of the Doshas has been divided into six stages;— 1. Sanchaya (accumulation), 2. Prakopa (excitement), 3. Prasara (expansion), 4. Sthaana Samsraya (localisation), 5. Vyakti or Vyaadhi Darsana (exhibition of definite symptoms of the disease and 6. Vrana Bhaava (destruction of the tissues). The six stages are called the six Kriyaakaalaas—i.e., the six periods available for us for prevention or treatment of the disease

Clinically, these periods may be identified by the prodromal symptoms of each disease which may be characterised in a different

manner in different diseases, but Sopha (swelling), Paaka (ripening), Vidradhi (the stage of abscess formation), Vrana (the stage of ulceration) and Kotha (Necrosis and gangrene) follow each other if the former stage is neglected or cannot be prevented from getting worse.

If the changes are for the better and the vitiation of the Doshas recedes and a stable equilibrium is restored among them we say that Dosha Paaka has taken place, but if the changes are for the worse and if the tissues are progressively destroyed we say that Dhaatu Paaka takes place.

This results in the incurability of the disease and death. The successive stages of Dosha vitiation along with their signs and symptoms are described in the Principles of Pathology-Ch. I. to VIII.

An intelligent physician has to note the causes of Dosha vitiation by noticing the slightest changes in the body of the patient and should prevent the disease before localisation takes place and the disease establishes itself as a definite entity upto the stage, the treatment is only for the excited Doshas and not for any disease because the disease itself is not yet established. After the fifth stage of Vyaadhi Darsana is established the treatment should be directed both for the alleviation of the Doshas and of the disease as known by its signs and symptoms.

THE SOUL FORCE (Aatma Sakti)

Really the power of resistance to disease and death lies in the Aatma Sakti or the Soul force, that is possessed by every living organism. The study of the Soul force is a big subject for research by modern scientists. A unit of Soul force may be converted into a thousand units of mental force and into tens of thousands of units of material force, just as of gold the weight of a sovereign may be exchanged for about ten thousand pies of copper. This soul force or vital power which determines the cure of disease or death, of the individual is still a mystery to medical science. It is Yoga, that gives a clue to the mystery.

CHAPTER II

MODERN CONCEPTION OF FEVER AND ITS AYURVEDIC SURVEY

Synonyms :—Allopathic: Pyrexia. Ayurvedic: Jwara, Roga, Duhkha, Dosha, Yakshma etc.,

Definition :—According to Allopathy, Fever or Pyrexia may be defined as a condition characterised by rise of temperature above the average normal 98.4°F to 98.6°F.

Fever or Pyrexia, is usually a reaction of the body to an irritant i. e. it is the general manifestation of a local inflammatory process in most of the cases.

The mechanism of production of fever is controlled by heat regulating centres in the hypothalamus in the brain and by physical and chemical factors. The condition of vasoconstriction or vasodilatation of the cutaneous vessels plays a great part in the reduction of body temperature. It is more a reduction in heat loss than increase in heat production that causes the body temperature to rise.

The causes of fever may be classified into four categories.

- (1) *Inflammatory* : processes in a broad sense.
 - (2) *Neurogenic* : diseases and affections of Brain stem.
 - (3) *Anhydraemic fever* : conditions in which blood gets concentrated e. g. Shock, Cholera etc.,
 - (4) *Drugs* : causing fevers.
- (2) and (3) are not commonly met with.

CHAPTER II

ALLOPATHIC CLASSIFICATION OF FEVERS

Fever considered by itself i. e. the condition in which the body temperature is kept at a higher level than normal, is not detrimental to the organism. It has been proved that antibody production is definitely better when the body temperature is higher though at very high temperature, 105—106, antibody production is depressed. This may also be inferred by the fact that in severe infections many people who are going to recover exhibit pyrexia while apyrexial infections of severe type invariably succumb. Experimentally rabbits have been kept alive for weeks without ill health with a raised temperature.

Hence, indiscriminate attempts at reduction of all fevers is discouraged though high fevers are treated symptomatically with cold sponge, ice bag etc. because of the discomfort the high fever causes as also to prevent depression of antibody formation.

It should also be noted that fever itself is used as a therapeutic measure in certain diseases because of its beneficial effects.

ALLOPATHIC CLASSIFICATION OF FEVERS

Introductory Remarks : There is no chapter on fever as such, in any of the modern text books on medicine, though it has been accepted that fever is a symptom of certain pathological conditions. It cannot however be denied that clinically a certain group of symptoms are recognised as constituting the condition called fever and that very often fever is treated as a disease by itself in actual practice.

Modern text books include different kinds of fevers in different chapters, some according to the seat of the disease, some according to the nature of the microbic infection. For example, Pneumonia is described in the chapter on diseases of the respiratory system; Meningitis in diseases of the Nervous system and Tonsillitis in the diseases of the Alimentary system and so on (Beaumont). But none of these is found under the infectious fevers for which a separate chapter is devoted, although these are also infectious diseases. It is also surprising to note that Plague, Leprosy and Dengue fever though of dissimilar pathology are all clubbed together in one chapter (Beaumont Ch. XII) only because they happen to be Tropical diseases.

Pathologically fevers are classified as (1) *Sapraemia* :—when the offending agent remains in a particular locality and the toxins are sent out from there into the circulation and cause fever.

(2) *Septicaemia* :— when the offending microbe itself circulates in the body.

() *Pyæmia* :— where pus which is the result of microbic activity circulates in the system with the formation of metastatic abscesses.

All these three conditions may cause fever in different degrees. Whether it is Pneumonia caused by Pneumococcus with its primary seat in the lungs or Puerperal fever caused by streptococcus having its primary seat in the uterus, or the Typhus, Typhoid or Malaria, or Cerebrospinal fever, or fever caused by Appendicitis or a Diabetic abscess with their own infective agents seated in different places and acting through different channels, the condition, namely, the fever resulting thereby may be classified under the above threefold classification of *Sapraemia*, *Septicaemia* or *Pyæmia*. In fact all these may be classified merely as fever although the causative agent and the seat may be different. Clinically fevers are classified as simple continuous fevers (3 day and 7 day fevers), remittent fevers, and intermittent fevers, septic, hectic or irregular fevers according to the time of occurrence of the fevers and also as low fever, high fever, and hyperpyrexia, according to the degree of fever.

There are also other classifications of fevers according to the climate or country such as Mediterranean fevers, tropical fevers, Rocky mountain fevers. They are also variously named as Black-water fever, Breakbone fever (Dengue), Yellow fever, Sandfly fever, Ratbite fever and so on, on account of the association of the fever to various circumstances. As Charaka says the name of the disease does not matter. It is in fact not possible to name all the different types of fevers but what is required is an accurate and intimate knowledge of the different factors which are responsible for that particular condition of the patient.

Thus in my opinion, the Allopathic classification of fevers is not quite scientific because there is no one classification which includes all the fevers.

ALLOPATHIC TREATMENT OF FEVER

Whether it is recognised that fever is a separate clinical entity or not and although a separate chapter is nowhere devoted for its detailed study as a definite pathological condition, there is no doubt that a certain line of treatment is followed by almost all practitioners for the treatment of the condition of fever as such. Antipyretic method of treatment such as rest in bed, fasting or suitable diet, careful nursing, hydropathic treatment by cold sponging and baths, sweating or enemata, drugs such as Aspirin, Phenacitin, Caffeine citras, Sodium Salicylate, Sodium Bicarbonate and the modern "Cure-alls" like Cibazol, Sulphanilamide with their mysterious trade names and even Penicillin are more or less common in the treatment of many fevers. All the above methods are in fact said to be used directly or indirectly to check the fever either by subduing its severity or by eradicating its cause.

It is known that fever is ordinarily a friend. It is well known that fever is utilised as a therapeutic measure atleast in the treatment of some obstinate diseases such as Chorea, Locomotor Ataxia and general paralysis of the insane. Fever is believed by many to be an attempt of nature to get rid of an enemy, who is causing injury to the system. Yet, very often fever is checked and it is not allowed to do its beneficial work in its own way.

Another theory is that fever is caused by fermentation due to the accumulation of foreign matter and that the fermentation is caused by certain microscopic ferments. The warmth is generated by the fermentation and the more violent the fermentation, the greater the increase of temperature and the consequent discomfort and the other symptoms. This increase in the warmth is brought about by the disintegration of the healthy tissue elements. The whole process is known as Toxaemia. A retrogradation of the process of fermentation is desired in order to restore the normal condition (Louis Kuhn). The question is what is the part that nature has to play in this matter and what is the part of the medical man?

AYURVEDIC SURVEY

Modern Medicine is an infant science. A Modern Scientist, with his firm belief that science can conquer nature, forgets that his

ignorance is colossal. According to some practitioners of the Modern Western Medicine, the human being is considered as a machine which works at a uniform rate and according to the schedule. It is not often recognised that the human machine has an initiative of its own—that it has a soul, Aatma, which gives the person both in health and disease an individuality of his own and which guides all his vital processes, (Refer Principles of Pathology by the author). Further, Modern Science does not seem to recognise sufficiently that apart from man's own efforts (Karma), there are certain forces of Nature and certain laws which are incessantly working in their own way and for Nature's own economy. They are often so obscure that human intelligence cannot always comprehend, but, all the same, these laws are constantly working and they apply equally in the daily lives of each individual human being as well.

Charaka definitely says that although a cause is required for starting the processes of disease, (i.e.), for disturbing the equilibrium of tissue elements (the Doshas), no such cause is required for restoring their equilibrium (Sootra. 94 16 27-24-42). Nature (Prakriti) always tries to restore the normal condition when the offending agent is removed. He says that the motive for all the attempts of the physician should be to help nature in her efforts, just as in helping a fallen man to get up although we may know that the man may himself be capable of getting up of his own accord but with some (Sootra 10-5) difficulty. No efforts of the Physician can help the patient, if nature herself does not help him. Charaka, while thus recognising the value of the services of the physician sets a limit to his capacities. Coming to the question of treatment of fever, a physician has to study in very great detail, how far his efforts are helping Nature in properly doing its work. Here lies all the skill of the physician and the test of the system of treatment that he professes to practise.

FULL IMPLICATIONS OF THE WORD 'JWARA'

According to Ayurveda, the word Jwara is a very comprehensive term. In fact the words Jwara, Roga, Duhkha, Dosha, Vikaara Yakshma etc., are all used synonymously. (See Principles of Diagnosis by the author P. 125)

Roga is literally that which causes pain or distress. This is more or less synonymous with the word disease in English.

Duhkha is unhappiness or misery. It is a disease.

Yakshma fever is called Yakshma because it causes wasting of the body. Consumption is called Raja-Yakshma.

Dosha and Vikaara indicate the vitiated condition of the nutrient fluids of the body. These fluids are classified to be of 3 kinds. They are called Vaata, Pitta and Kapha. Vaata is that which in the healthy state, supports the cells and tissues and is responsible for their enthusiasm and activity and it influences the nervous mechanism of the body. Pitta is that which, in a healthy condition, influences the lymphatic and the respiratory mechanisms. When the Doshas are vitiated in any manner, by the food and habits of the individual (Ahitaahara Vihaara) or in other words by the wrong judgement (Pragnaaparaadha) of the individual in the use of his mind and the senses or by Kaala climatic changes, they, the Doshas, instead of supporting the body become morbid and are responsible for the causation of all diseases. In fact their equilibrium is health and the purpose of all treatment in disease is to restore their equilibrium. (See Sec. I. Chap. I Principles of Pathology by the author). For instance, a pathogenic microbe may enter the body, but unless the doshas are in a morbid condition, these microbes cannot cause any disease.

CLASSIFICATION OF FEVERS

We have noticed the great confusion in the classification of fevers according to Allopathy. They have no classification which includes all fevers. But in Ayurveda fevers are broadly classified into 8 classes (1) Vaata type (Nervous type) (2) Pitta type (Alimentary) (3) Kapha type (Respiratory type) (4) Vaata Pitta type (Nervo-Alimentary type) (5) Vaata Kapha type (Nervo-Respiratory type) (6) Kapha Pitta type (Respiratory-Alimentary type) (7) Sannipaata type (mixed type) and (8) Aagantuka type (Extrinsic type.) All these are caused by disturbance of the equilibrium of the body or the mind. Disturbance of the equilibrium of the body is caused by vitiated Vaata, Pitta and Kapha-the nutrients, and the disturbance the equilibrium of the mind is caused by vitiated Rajas-emotion

and Tamas-ignorance or infatuation. These eight classes include all fevers due to various causes, including fevers prevailing in various climates and having their seat in various organs of the body, exhibiting different symptom complexes and different degrees of virulence. No fever is excluded from this classification. Not only the fevers that are caused by the microscopic and ultra microscopic viruses and micro organisms, but also fevers caused by the subtle emotions such as anger, lust and fear (due to Rajas) and ignorance, infatuation and delusion (due to Tamas), and those caused by the curses of others (Saapa) are included in this classification. In the diverseness of the manifold fevers, the one common factor namely the disturbance of the equilibrium of the three Doshas is to be recognised. Although Ayurveda describes many subdivisions of these eight types of fevers together with their individual treatment, it aims at synthesis in its methods of study, whereas Allopathy as it is developed at present, aims more at analysis and stops there.

Classification according to these eight types is very essential because the treatment differs according to the different types such as Vaata, Pitta and Kapha or their combinations. Further, treatment for each type is similar, whatever be the causative agent or the seat of the disease.

SIX STAGES IN THE DEVELOPMENT OF FEVER

Six stages are described in the development of fever (in fact, of every disease). These stages are:—

(1) *Sanchaya*:—accumulation of the Doshas—Vitiating Nutrients:—

(2) *Prakopa*:—their excitement (i. e.) their preparation for war.

(3) *Prasara*:—extension or invasion to other areas.

(4) *Sthaanasamsraya*:—their localisation.

(5) *Vyakti or Vyaadhi Darsana*:—definite advent of disease with the exhibition of the full symptom complex as a separate clinical entity (Roopa) and.

(6) *Bheda*:—destruction of tissues.

It is the duty of the physician, to study as quickly as possible, the earliest stages of the disease by noting the causes and prodromal symptoms (Poorva Roopa) and to prevent it at that stage, so that further stages may not be reached. All these details of the six stages

of the development of fever are minutely described in the text books of Ayurveda, which it is not possible for us to repeat here. Read Section II. Principles of Pathology by the author.

PATHOLOGY OF FEVER

Fever may be caused by the obstruction to the circulation of one or more of the Doshas, individually or together. They disturb the digestive system and the heat producing and the heat distributing mechanism in the body. They thereby cause the symptom complex called fever *Jwara*. The Doshas may be located in the *Koshta* (alimentary canal) or may have their seat in any of the *Dhaatus*—in the *Saakhaas*—namely—*Rasa* (lymph) *Rakta* (blood), *Majja*—(Bone marrow) or *Sukra*—(Sperm tissue) or in the *marmas*—head, chest, or pelvis, or in any other organ. The symptoms of the fever may differ according to the type of severity of the vitiated Doshas, or the seat of the different Doshas, or the causes which were responsible for the excitement of the Doshas, but the most constant symptom of fevers is *Santaapa*—burning sensation in the body and restlessness of the mind. It is present in every fever. It is only when this stage is reached that the condition is called *Jwara*. This is the fifth period in the development of the Doshas and in fact, is the fifth occasion for treatment (*Kriyaakaala*), the remaining four occasions having been passed over without the *Roopaa* or the definite symptom of *Santaapa* being exhibited. According to Ayurveda fever is thus regarded and treated as definite disease—a definite symptom complex, a separate clinical entity. Further, it is also considered as the King of diseases. *Rogaraat*—the definite and diagnostic symptom of *Jwara* (fever) is *Santaapa*—a peculiar burning sensation in the body and uneasiness of the mind and senses. “*Dehendriya Manastaapi Jwarah Pratvaatmakam lingam*”—Charaka, *Chikitsa Chap. III*. The presence or a absence of temperature is not so important. *Susrutha* defines fever more clinically thus. “*Swedaavarodho, Santaapah, the disease of fever.*”

If, in the fifth stage of disease stated above as fever, proper treatment is not given, destruction of tissues (*Dhaatu Paaka*) continues causing more or less permanent damage to the body. See Section. III, Principles of Pathology by the author.

PRINCIPLES OF TREATMENT OF FEVER

The treatment of fever is primarily divided into 3 kinds.

1. Dosha Vipareeta Treatment is like symptomatic treatment (i. e.) treatment aimed at bringing down the excited Doshas to their normal level and thereby effecting their equilibrium.

2. Vyaadhi Vipareeta Treatment-Specific treatment (i. e.) Specific treatment aimed at eradicating the disease or mitigating its effects.

3. Dosha Vyaadhi Vipareeta Treatment is treatment aimed at both.

The methods of treatment are again divided into 3 kinds.

(1) Samsodhanam (Eliminative Treatment) (2) Samsamanam (Soothing Treatment) and (3) Nidaana Parvarjanam (Removing the cause.)

The human body consists of the ingoing nutrients, the three Doshas, the Sapta Dhaatu cells and tissues (which are more or less stationary) and the three malas-debris-the outgoing material such as urine, stools, sweat etc. These three categories of constituents are in a pure or normal state in good health. But when the equilibrium is disturbed by any cause, the three Doshas are vitiated and they in turn vitiate the tissues and the debris. In the healthy state, all these are said to be Prasaada Bhoota i. e. in a pure state, and in the morbid state, they are said to be malabhoota (i. e.) impure state.

The purpose of all treatment is either to remove the morbid products:-Malabhoota-from the body by driving them out or to neutralise them in the localities at which they exist inside the body. The process of removing them outright is called Samsodhanam and the process of resolution of the toxic products in the situations in which they exist is called Samsamanam.

(1) *Samsodhanam*:- Eliminative Treatment-The aim in this is the purification of the body by elimination of the irritating agents by methods such as lubrication, fomentations, sweating (Sneha and Sweda), emetics, purgatives, enemata, nasal purgatives (Nasya) and blood letting-known as Panchakarmas.

Eliminatory measures (Samsodhanam) such as purgatives and emetics should not however be administered in acute fevers when the

Doshas are in the Aama-or immature condition. Just as it is not easy to extract the juice from a raw fruit as compared with a ripe fruit, so also it is difficult to eliminate the debris (toxins) when it is in the raw or immature state. Under such conditions fasting (langhana), deepana and pachana measures (i. e.) carminatives and digestives and soothing remedies should be used till such time as the doshas become mature. This is an important difference between Ayurvedic and Allopathic treatment because the Allopathic practitioners very often resort to purgatives in the treatment of early cases of fever.

(2) *Samsamana*:- Soothing Treatment. This method aims at soothing the injured tissues by methods such as fasting, withholding fluids, administration of fresh air, sunlight, and suitable nursing by proper rest and exercise etc.,

(3) *Nidaana Parivarjanam*:- Removal of Cause. This is attempting to remove the cause such as avoidance of irregular food and habits and the extermination of the pathogenic agents-visible and microscopic.

All antipyretic, antiseptic, hydropathic or other treatments used in Modern Medicine are included in the above treatment according to Ayurveda (i. e.) either in the Dosha Vipareeta treatment, or Vyaadhi Vipareeta treatment of Dosha Vyadhi Vipareeta treatment, or in Samsodhana, Samsamana or Nidaana Parivarjaana treatments mentioned above.

Thus, even in the matter of treatment, Ayurveda has a genius for synthesis in the methods of study which helps the physician to have a complete and comprehensive grasp of the whole procedure of treating the man and his disease at the same time.

Thus according to Ayurveda, the fever is a separate clinical entity (i. e.) definite disease, with definite symptoms and has a definite line of treatment.

CHAPTER III

AAMA AND ITS IMPORTANCE

Definition :—The word Aama means raw or unripe, i. e., immature also—improperly digested. Aama is the opposite of Pakwa which means ripe or digested.

Aama is defined in Aayurveda as the imperfectly digested Aahaara Rasa. In the normal condition, Aahaara Rasa is first converted into Rasa Dhaatu and then into other Dhaatus. Aama is generally generated in the Aamaasaya on account of the weakness of the Jatharaagni.

*Ooshmanolpā Balatwen
Dhaatu Maadya Mapaachitam
Dushtam Aamaasaya gatam
Rasam Aamam Prachkshate.*

(Vagbhata Sutra-13-25)

Aama is found mixed with the three Doshaas, Vaata, Pitta and Kapha; with the seven Dhaatus and also with Malaas.

Some say that Aama is produced by the mutual interaction of badly vitiated Doshaas,

*Anye Doshebhaya eva Ati,
Dushtebho Anyonya Moorchanaat
Kadravebhyo Vishasya iva
Vadanti Aamasya Sambhavam*

(Vagbhata Sutra-13)

and that it gets mixed up with the Sapta Dhaatus and Malas.

AAMA DOSHA AND AAMA VISHA

Aama is also designated as Aama Dosha and sometimes as Aama Visha. Aama is called Aama Dosha because like the Doshaas it vitiates the Rasa Dhaatu and through it the other Dhaatus and Malaas. Aama is sometimes designated as Aama Visha, when Aama spreads very quickly like a Visha (poison) and vitiates the Dhaatus and affects the senses also like a visha.

NATURE OF AAMA

Although generally, the Aama condition is characterised by excess of moisture (Kleda), but when Aama acts as a poison (Aama Visha), it is so subtle and vyavaayi that it cannot be said to be merely laden with moisture. It becomes volatile, as it were, and is capable of acting directly and rapidly on the nerves as poisons do.

JATHARAAGNI—DIGESTIVE FIRE

Ahaara:—Food is digested by Jatharaagni aided by Samaana Vaayu in the Aamaasaya. Jatharaagni is also called Paachaka Pitta. Both Jatharaagni and Paachaka Pitta are treated as practically synonyms by Susruta.

*Pasyaamah Na Khalu Pitta
Vyatirekaat Anyo Agniriti.*

(Susruta-Sutra—21-9)

The following factors are necessary for good and complete digestion.

1. Ooshma or heat relating to Pachaka Pitta (Jatharaagni).
2. Vaayu-Samaana Vaayu-arrange the food suitable to come into contact with Jatharaagni. It is therefore said that Samaana Vaayu is essential for digestion.

*Samaanogni Sameepastah Koshthe Charati Sarvatah
Annam Crinhati Pachati Vivechayati Munchati*

(Vagbhata Sutra—12-8)

The so-called churning movements are made by the Samaana Vaayu which includes the nervous mechanism concerned with the digestion of food.

3. The third factor is Kleda which means the necessary fluid secretion that is mixed with the Aahaara to make it moist enough in order that it is made into a semi-liquid mass.

4. Sneha or unctuous secretion that make the food mridu or soft.

5. Kaala, the necessary time factor that is required for the different digestive functions, and finally

6. Sama Yoga, i. e., a correct combination of all these factors.

Aahaara Parinaama Karaastu Ime Bhaavaah Bhavanti—

Thadyatha : Ooshma, Vaayu, Kledah, Snehah, Kaalah,

Sama Yogascheti. (Charaka Saareera 6-14)

When any of these factors are deficient, especially, when Paachaka Pitta is weak, the food is not digested properly.

PANCHABHOOTAAGNIS AND DHAATWAGNIS

The food is also subjected to digestive processes by five Bhootagnis and Seven Dhaatwagnis, inherent in the body itself. The body is Paanchabhoutika. The five Bhootagnis i. e., the five special bio-chemical processes are responsible for the conservation of the gunaas of the Pancha Bhootas in the body.

Yetratu Aahaara Paaka Visesha Maaha—Sareeram cha

Pancha-Bhoutikam, Tatra Pancha Bhooteshu

Panchaagnayah Tishtanti

(Bhaava Prakaasa-Purvakhanda2-207)

These Agnis are technically called 'Vijaateya Tejas' special kinds of energy which are responsible for the bio-chemical changes in the body.

Bhoumaapyaagneya Vaayavyah Panchoshmaanah Sanaabhasah

Panchaahaaragunaan Swaan Swaan Paarthivaadeen

Pachantyana Yethaa Swam Te Cha Pashnanti Puktwa Bhoota

Cunan Prithik Parthivaah Parthivaaneva;

Seshaah Seshaamscha Dehaan.

(Vagbhata-Saareeram)

The five Bhootagnis, Bhauma, Aapya etc., assimilate the substances which have the special properties of each Bhoota and there-

by the Bhootas, which contribute to the construction of the body are developed or enhanced. Each Bhootaagni assimilates the substances which have gunas or the properties of that particular Bhoota alone. There, it is emphasised that only parthiva substances are assimilated by parthiva Bhootaagni and Aapya Bhootaagni and so on. For instance if Naabhasa (Aakaasa) Bhootaagni does not function properly, its properties or Sookshma (Subtleness), Visada (clearness) Laghu (lightness), and Sabda (sound) will become deficient in the body. There is another significance. Vaata is the result of Aakaasa and Vaayu. If these two Bhootaagnis do not function properly, the function of Vaata in the body will be deficient i.e., enthusiasm etc., will be affected.

*Utsaahocchwaasa Niswaasa
Cheshta Vega Pravarthanah*

(Vagbhata-Sutra)

This principle of the conservation of Bhootaas by the energy of Bhootaagni is a general principle in nature and it applies to human body also. Therefore, the weakness of Dhaatwangnis and Bhootaagnis also may produce Aama in the Dhaatus. These Bhootaagnees and Dhatwagnees derive their strength from Paachaka Pitta.

*Tatrasthanieve Pittaanaam
Seshaanaam Apyanugraham
Karoti Bala Daanena Paachakam
Naama Tat Smritam.*

(Vagbhata, Sutra)

As the Paachaka Pitta itself is weak, it is not able to adjust the Paanchabhoutika constitution of the food satisfactorily and the resulting imperfect food product is not acted on properly by the Bhootaagnees, which are themselves weak. Thus the food in the Aamaasaya is not converted into proper Aahaara Rasa. This imperfect Aahaara Rasa, called Aama is scattered by vyaana Vaayu throughout the body and it reaches every Dhaatu and Mala and Upadhaatu.

Dushtom Aamaasaya Gatam Rasam Aaman Prachkshate.

Dushtom-Vaataadyanusayitam—i. e., associated with Doshas.

CAUSES OF PRODUCTION OF AAMA

Taking food in excess or foods that are Viroodha (germinating), Guru (heavy), i. e., beyond maatra (proper measure) is the chief cause of the production of Aama. The excess of food may depend upon Amaatra Guru, Samskaara guru, samyoga guru, swabhoova guru etc. This is to be settled by the person himself. Amaatra is the chief cause of Aama Dosha. Charaka says, the capacity of Aamasaya is to be divided into three parts $\frac{1}{3}$ of it should be filled by solids $\frac{1}{3}$ by liquids and $\frac{1}{3}$ is to be kept empty (Vaaghata says that $\frac{1}{2}$ should be filled with solids, $\frac{1}{4}$ by liquids and $\frac{1}{4}$ kept vacant) to enable the Doshaas to move freely and do their functions properly and so on. Charaka says that not only the Amaatra i. e., excessive foods but also foods which are guru (heavy,) Rooksha (dry), Seeta (cold) etc. are Aama generating. These are designated as Apathya Aahaaraas. Even when proper food is taken according to proper measure, the digestion may be upset by emotions such as Chinta (brooding), Sokam (sorrow), Bhaya (fear), Krodha (anger), Dukha (worry), Sayya (excessive sleeping) and Prajaagara (waking up in nights).

*Maatrayaaphyabhyavahritam Pathyam Cha Annam
Na Jeeryati Chinta, Soka, Bhaya, Krodha,
Dukha, Sayyaa, Prajaagaraah*

(Charaka, Vimanam 2-11)

This explains the psycho-somatic relation in the causation of diseases which are now greatly prevalent on account of certain conditions depending on hurry, worry and selfishness due to modern civilisation.

FORMS OF DISEASES CAUSED BY AAMA

Aama thus circulating in the body and mixing with Doshaas may cause many acute and chronic diseases. When Aama is associated with Doshaas, they are called Saama Doshaas and with Dhaatus and with Malas, Saama Malaas. Diseases caused as the result of association with Aama are called Saama diseases (Saama Rogasi).

*Aamena Tena Samprikta Dosha Dooshyascha Doosh taah
Saamaa Ityupadisyante Ye Cha Rogaa Stadudbhavaah*
(Vagbhata, Sutra 1.-27)

There are acute diseases like Vishoochika, Jwara, Alasaka etc. caused by Aama which are called Saama diseases, where Aama is the chief factor. In some other diseases like Vrana (Abscess) or Grandhi (Glandular inflammation), Aama pitta, Arochaka, Saama Vaata etc. there may be Aama in certain stages only. In Atisaara and Grahani, the Aama condition of the stool has to be distinguished from Pakwa condition for the purpose of treatment. The Aama stool is offensive, floats in water and is slimy. In Aamaatisaara, the passage of faecal matter should not be arrested by sthambhana drugs.

Prayojyam Na tu Samgraahi Poorvam Aamaatisaarini
(Vagbhata, Chikitsitam 9-4)

So also in Taruna Jwara usually associated with Aama, the Mala Dosha goes out as diarrhoea. It is better left alone if it is not debilitating.

SYMPTOMS OF AAMA ASSOCIATED WITH VAAYU, PITTA AND KAPHA

When Aama is associated with Vaata, it causes serious complications, distention of the abdomen (Aadmaana) and suspension of intestinal movements. It also causes constipation (Vibandha), loss of digestive power and restriction in respiratory movements (Swaasa Sthambhana), noises in the bowels (Anthra Koojanam), Colic, (Soola), Swellings (Sopha) and pains in several parts of the body (Nistoda) etc.

*Vaayuh Aamaanvitah Saartih Aadhmaana
Krit Asamcharah etc.* (Vagbhata Sutra—13—Samgraham)

The symptoms are ameliorated by Snigdha—lubricating treatment.

When Aama is associated with Pitta, it causes bad smell, any colour other than white, green grey or black—Haritham, Syaava or

Asita,—bitter taste and loss of strength. It also causes thick, heavy and acid eructations, a feeling of heaviness (guru) and acid burning and hot feeling in the chest and throat.

When Aama is associated with Kapha it causes turbidity, stringiness, thickness and stickiness to Kapha. Some say that it also causes bad smell to Kapha (Durgandhi) and that it is prominently found in the throat and that it lessens appetite and obstructs eructations.

SYMPTOMS DUE TO MALAAS ASSOCIATED WITH AAMA

Obstruction to Srotases (excretory passages), loss of strength, heaviness, obstruction to the passage of wind, laziness, improper digestion, watering in the mouth, bad taste and tiresomeness. Other following symptoms may also be found. Yellow, red or black colouration of faeces, urine, nails, teeth, skin and eyes, pain in the back (Prishta), in the bones, in the waist and in the joints (Prish-tasthikati Sandhiruk), very severe headache, excess of sleep, bad taste in the mouth, swelling in some parts of the body, fever and diarrhoea.

TREATMENT

The treatment of Aama is divided into three grades.

*Tatraalpe Langhanam Pathyam
Mandhye Langhana Paachanam
Prabhoote Sodhanam* (Vaagbhata-Sutra)

When the intensity of Aama is small or very limited or not severe Langhana is to be adopted.

When the strength of it is medium Langhanam and Paachanam and when Aama is severe Sodhanam has to be administered.

In ordinary conditions Langhanam is enough.

Aahaaram Agnih Pachati Doshaan Aahaara Varjitah
(Vaagbhata)

Jatharaagni generally digests food. When there is no food, it digests the Doshaas. So, in Aama condition when fasting is prescribed, Jatharaagni becomes capable of digesting Aama and Saama Dosha.

When the volume of Aama is in excess, this cannot be digested by Jatharaagni. In most of the conditions when Aama has not got circulation, it may be ejected by Vamana Karma.

Sweda Karma may be administered when Aama has got into the circulation as indicated by pain etc.

*Sarva Deha Pravisritaan Saamaan Doshaan Na Nirharet
Leenaan Dhaatushanut Klishnaan
Phallat Amaat Rasaaniva
Aasrayasya Hi Naasaaya Te Syuh Durnirharatwatah*
(Vaagbhata, Sutra-13)

But when Aama gets distributed into the system, an elimination process should not be attempted because the Dhaatus to which Aama clings will be destroyed.

*Aama Samgrahane Doshaa Doshopakrama Eertiah
Paayayet Dosha Haranam Mohaat Aama Jware tu Yah
Prasuptom Krishna Sarpam Sa Karaagrena Paraamriset.*
(Vaagbhata, Chikitsa 1-103)

For example in jwara the process of elimination attempted by mistake in Saama jwara is compared to provoking a sleeping cobra with one's own hand for sport.

Just as Aama locked up in Aamasya is assimilated or digested or converted by Langhana (fasting etc.) Aama contained in the Dhaatus is also converted by the same process of Langhana extended. As the normal period of assimilation of Rasa Dhaatu into tissues is explained as 6 days, 7 days is recommended to be sufficient to convert Aama Doshas Locked up in Dhaatus.

*Saptaahena Tu Pachyante Sapta Dhaatu Geta Malah
Niraamaschaa Pyato Proktaah Jwarah Praayoshtamehani*
(Charaka, Chikitsa 3-272)

In Aama dosha Langhana or fasting is the general form of treatment. Even medicine is forbidden in acute conditions. As the jatharaagni is already weak and struggling to digest the Aama, it cannot digest the medicine, another newcomer. Hence in cases of Aama, even with much pain such as is obtainable in Vishoochika and Alasaka, no medicine should be given in very early stages.

*Teevraartirapi Naajeerni Pibet Soolaghnām Oushadham
Aama Sannonalo Naalam Paktum Dosha Oushadhaasanam
Nihannyat Api Chetshaam Vibramah Sahasaaturam.*
(Vaagbhata)

If very strong medicine is given to allay pain in predominant Aama cases, the jatharaagni cannot digest the medicine and the conflict of various forces 'Vibramah' may kill the patient. The interaction of Doshas, food and medicine may cause even fatal results.

PROTECTION OF OJAS AND BALAM IN LANGHANA

In certain cases of fever this measure of Langhana cannot be extended even for seven days as it is necessary to protect the strength of the patient. The strength of the patient should be watched.

Balaadhishtaanamaarogyam Arogyarthah Kriyakramah
(Charaka)

The strength mainly depends upon Ojas. When there is much Aama Dosha in the body producing fever and the Jatharaagni is too weak and suppressed by Saama Doshas, Langhana or fasting liberates the Jatharaagni and it is gradually strengthened by nature itself; for Jatharaagni is called Bhagavaan, a divine energy. The Jatharaagni gradually digests the Doshas first, improves their function and thereby the Aahara rasa gets gradually cleared of Aama. Then Ojas is increased.

*Langhanaih Kshapits Doshe Deeptegnou Laaghave Sati
Swasthyam, Kshut, Ruchi, Pakti, Balam Ojascha Jaayate,*
(Vaagbhata, Chikitsa 1-3)

ELIMINATION OF AAMA

Aama Dosha may get distributed throughout the whole body adhering to various Dhaatus, Upadhaatus or their malas in various srotasses; when it is only in Koshta, the Jatharaagni digests it or it may be expelled by vamana karma in the initial stages. If it is spread throughout the body adhering to various doshas, Dhaatus and Malas, no sodhana karma is to be administered, Vasti (for Vaata), vire-

chana (for Pitta), just as juice cannot be extracted from unripe fruit. In such cases of adherent Saama Dosha, different forms of Paachana Karma are recommended.

*Deepanam, Paachanam, Kshut, Trit,
Vyaayaama, Aatapa, Maarutaah* (Vagbhata-Sutra)

According to the suitability in each case, one or more of the Samana processes, namely, Deepanam (Carminatives), Paachanam (Digestives), Kshut, (restraining hunger), Trit (restraining thirst), Vyaayaama (suitable physical exercise) and Maarutha (Exposure to dry) may be administered.

For example in Saama Jwara,

*Langhanam, Swedanam, Kaalo, Yavaagoo Sthiktako Rasah
Malaanaam Paachanaani Syuh Yethaavastham Kramena Vaa.*
(Vagbhata)

Langhanam (fasting), Swedanam (fomentation), Kaalam (time factor), Yavaagu (thin, light broken-rice Kanji) and Tiktaka Rasa (use of preparations having bitter taste)—according to the nature of the case in Jwara, one of the above mentioned, or one by one in order, may be administered for Aama lying deep in various srotases by these processes. In such cases, adherent doshaas (mixed with Aama Dosha) have to be cleared out by giving Paachana drugs and Sweda Karma, and when these come out into the Koshta (Maha-srotase) they have to be eliminated. The nearest route has to be taken when considering the doshaas. Thus, if the doshaas are in Aamasaya, Vamana Karma is to be administered and if it is in the Pakwaasaya, Virechana or Vasti may be given and so on,

AAMA—ITS IMPORTANCE IN AYURVEDIC TREATMENT* (REVIEW)

The words humidity and humour are derived from the same derivative, namely Aama (Webster's Dictionary). The aspirate 'H' is added to the word Aama and it has become Humid, meaning wet.

* By Dr. Lakshmi Pathi, B. A., M. B. & C. M., Bhishak Ratna, Honorary Principal, Govt. Ayurveda College, Trivandrum.

In Ayurveda, the words Aama and Pakva are very important in order to understand the theories of pathology and treatment according to Ayurveda. The success or failure of the Ayurvedic physician in treatment depends upon the understanding of these two conditions, Saama and Niraama—immature and mature.

The knowledge of Saama and Niraama gives the key to the proper understanding of the theory of inflammation according to modern science.

The word Paaka in Ayurveda means ripening. It is a biochemical change taking place in the body. It produces heat. This heat is technically called 'Vijasteeya Tejas' i. e., a kind of fire i. e., heat in a different form.

What the Modern Science calls inflammation, is described as a reaction of the body to an injury. It is the fight between the living tissues and the injury, or it may be the pathogenic-microbe in the body. Ayurveda describes this reaction as Dosha Dhaatu Sammurchana i. e., the interaction or fight between the vitiated elements in the body called Doshas and the tissues called Dhaatus.

According to Ayurveda, health is described as the equilibrium of the Doshas, Daatus and and Malas i. e., the nutrients, Poshaka Dravya, tissues, Poshyadravya tissues, and debris, Mala. Slight disturbance of the equilibrium leads to disease. In other words, the disturbance itself is called disease.

Rogastu Dosha Vaishamyam Dosha Sayam Arogata.

Just as inflammation is characterised by heat, redness, pain and sometimes fever in certain stages, Paaka also may be sometimes attended by heat, redness pain and sometimes fever. The word inflammation is derived from flame fire. Similarly the word Paaka is associated with Pitta which is also derived from 'Tap'-fire. We see that both the words inflammation and Paaka are associated with fire (heat).

It should be noted, however, that Paaka is both physiological and pathological whereas inflammation is only pathological. Aahaara Paaka in the body or the ripening of a fruit in nature are examples of physiological Paaka. Paaka in disease which is similar to inflammation is termed as Vrana Sopha, Vrana Paaka etc. according to different stages.

Susruta says "Sarva Sopha Vikareshu Vrinavat Lakshayet Bbishak." He means that symptoms similar to those observed to Vrana should be noticed to all diseases, where there is Sopha and proper treatment should be administered. Although Paaka represents only one stage of inflammation, for the sake of convenience, I have here expanded the meaning of the word "Vrana Paaka" to have the same significance as the English word inflammation. The bio-chemical processes are similar in both cases. Some have used Sopha or Vrana Sopha as a synonym for inflammation. But sopha relates mainly to the first stage of inflammation; whereas the word Paaka includes more or less all the stages of inflammation. Therefore I preferred to denote the word inflammation by the word Vrana Paaka instead of Sopha or Vrana Sopha.

In all cases of inflammation, there is Dosha Dhaatu Sammurchanam i. e., morbid interaction between the Doshas and the Dhaatus by virtue of the existence of an offending agent. The disturbance in the equilibrium that is caused is called 'Vikriti' or Dosha Vaishamyam and the restoration of normal equilibrium is called Prakriti of Dosha Saamyata.

Vikaaro Dosha Vaishamyam, Saamyam Prakriti Ruchyate. It should be noted, however, that the conception of Dosha Dhaatu Sammurchanam in Ayurveda is more comprehensive than the conception of inflammation, because Dosha Dhaatu Sammurchanam includes also the pathological changes that take place in diseases such as Diabetes where there is no inflammation. Dosha Dhaatu Sammurchanam includes also the pathological changes that take place in the degenerative and metabolic diseases where they may be inflammatory or not.

SIX KRIYAAKALAS OR PERIODS FOR TREATMENT

All the pathological changes known as sampraapti in Ayurveda are clinically classified into 6 stages, i. e., into six Kriyaakaalaas or periods of treatment. These should be noted carefully by the physician in every disease for the administration of treatment at the appropriate time. These six stages are:—

*Samchayam Cha Prakopam Cha
Prasaram Sthaana Samsrayam*

*Vyaktim Bhedam Cha Yo Vetti
Doshaanaam Sa Bhavet Bishak*

(Susruta-Sutra Ch. 21)

1. Samchaya stage—i. e., the stage of accumulation of the forces for the fight—the Aama stage.
2. Prakopa stage—the stage of excitement before war—the Pachyamaana stage.
3. Prasara stage—stage of expansion of movement of the forces.—continuation of pachyamaana stage.
4. Sthaana Samsraya stage—The stage of localisation of camping in battle fields continuation of Pachyamaana stage.
5. Vyakti or Vyaadhi Darsana stage—The stage of the height of the battle i. e., of the exhibition of full signs and symptoms of the diseases. Mainly the pakwa stage in an abscess.
6. Bheda or Vrana Bhava stage—i. e., the stage of the destruction of the enemy as also of the tissues. Continuation of the Pakwa stage

It is only he, who knows how to demarcate the six stages or occasions for treatment who is a physician.

CLINICAL CLASSIFICATION OF INFLAMMATION

Inflammation or Vrana Paaka may be divided clinically into various stages, which may be classified as follows:— 1. Sopha-Avasta—i. e. Aamaavastha—It is characterised by swelling which comprises mostly the Samchaya stage—a stage of accumulation of the fighting forces. In this stage Kapha is more predominant and Pitta and Vaata are less predominant. There is dilatation of the vessels etc. as in the first stage of inflammation. This is the first Kriyaakala—first period for treatment according to Ayurveda. If proper treatment is administered at this stage, the disease may be averted.

*Samchaya Apahritaa Doshaah
Labhante Nottaraam Gateeh*

(Susruta)

2. Paaka—Avastha—Pachyamaana Avastha (ripening stage). This stage in an abscess is characterised by heat, redness, pain and fever etc., which correspond to the Prokopa, Prasara and

Sthaanasamsraya stages, where pitta is more predominant. These represent the 2nd, 3rd and 4th stages of treatment—Kriyaakalas.

Vaata (which means the sum total of the effects of the nerves mechanism) is the leader of Pitta and Kapha (Yogavaahi). It is always there.

Sarvaahi Cheshtaa Vaatena

Sa Praanah Praaninaam Smritah

Tenaiva Rogaa Jaayante

Tena Chaiva uparudhyate. (Charaka, Sootra 17-116)

It is Vaata that causes all diseases and it is vaata that also cures them. It is also capable of killing the patient. (Principles of Pathology p. 31)

3. Vyakti or Vyaadhi Darsana, the 3rd stage. It is the Pakwa stage.

This stage is characterised by all the symptoms of the full manifestation of the disease. Pravyakta Lakshanata in all diseases. In an abscess it is the stage of suppuration—Vidradhi stage. In other diseases, it is the stage where the signs and symptoms are fully exhibited. This is the 5th Kriyakaala.

Sopha, Arbuda, Grandhi, Vidradha

Visarpa Prabriteenam Pravyakta Lakshanata

Jwarateesaara Prabriteenaam cha

Tatra Panchamaah Kriyaakaalah (Susruta Ch. 21)

These stages called Kriyaakaalas have to be differentiated in all diseases according to Aayurveda as different stages of Dosha Dhaatu Sammurchanam, where suitable treatment for each stage is to be given in order to avoid further progress of the disease.

4. Bhedaavasta—Vrana Bhaava—the stage of destruction of tissues in an abscess. It is characterised by great loss of tissues. Dhaatu Naasa and Sraava (exudation) etc., are the symptoms in all diseases in this stage. Susruta says that this is the last or the sixth stage or Kriyakaala of disease.

Ata Oordhwam Eteshaam Avadeernaanoam

Vrana Bhaavam Apanaanaam

Shastah Kriyaakaalah

Jwara tesaara Prabritunaam cha

Deergha Kaalaanubandhah

Tatra Aprate Kriyamaane Asaadhyataam Upayanti.

(Susruta, Sutra Ch. 21)

5. Vyakti or Vyaadhi Darsana stage.

This is the stage of destruction (bheda) comprehending ulceration, necrosis and gangrene (kotha) i.e., both molecular death and destruction enmasse of the tissues of organs. If proper treatment is not given in this stage or if the disease is not cured by nature, there may be large scale destruction of the tissues and it may result in death of the individual. Even if it is cured, a permanent mark of the injury i.e., a scar is left in the body. This stage is called Vrana Bhaava stage because the effects of Dosha vitiation spread throughout the body.

Vranoti Yasmat Roodhopi

Vranavastu Na Nasyate

Aadeha Dhaaranat, Tasmāt

Vrana Itynchyate Budhah

6. Bheda or Vrana Bhaava stage.

This is the sixth and the last occasion for treatment (Shashtah Kriyaakaalah). The word Vrana is derived from "Vrana-Samchoor-nane" (Maadhava Nidaana, Vrana-Nidaana-Teeka)—Vrana is that which causes pulverisation or molecular destruction of tissues, so as to change altogether the form of the tissues affected. Samchoor-chanam means complete pulverisation.

Susruta says that the word Vrana has some other significance also. 1. Although the Vrana may start at one place, it has a tendency to spread—Vranoti Yasmaat—so Vrana is that which spreads.

2. Even after the Vrana (ulcer) heals, a permanent mark of the ulcer is left behind in the body during the whole life time as a scar. Even in internal organs such as the lungs, liver and kidney a scar is left in the form of fibrous tissue after the healing of the ulcer and so Vrana is also defined as that which leaves a permanent mark or scar.

"Roodhopi Vrana Vastu Na Nasyati"

(Susruta Sutra Ch. 21)

The word Vrana is used in Aayurveda in different meanings.

Vrana in the popular language means an ulcer left after the bursting of an abscess or caused by an accidental injury. In Aayurveda, Vrana includes all inflammatory conditions as in Vrana Prasna, Vrana Sodha, Vrana Paaka, Vranabhaava and so on. I have said that I have chosen the word Vrana Paaka to denote the various stages of inflammation because Paaka and flame both indicate fire or heat.

Vranabhaava means the state of ulceration. It is also called Bheda. It is the sixth stage of Dosha vitiation and the sixth occasion (Kriyaakaala)—occasion for treatment. Similarly vidradheebhaava means the stage of suppuration—the fifth Kriyakala. See Susruta Sutra Chap. 21-Vrana Prasna.

See also Charaka-Sutra-Chap. XIX in the enumeration of diseases—"Dwan Vranau-Iti Nijascha Aagantujascha" and he deals with the whole subject of inflammatory swellings. Nija-intrinsic and Aagantuka-extrinsic. Here Vrana does not merely mean an ulcer. It is a general term for all wounds.

The term Vranabhaava however, applies to the 6th stage of inflammation or Dosha vitiation known as Bheda. Susruta says :

*Nakevalam Vraneshu ukto
Vedanaa Vrana Samgrahah;
Sarwa sopha Vikareshu
Vranavat Lakshayet Bhishak.*

(Susruta Sutra Ch. 22)

The physician should carefully note the nature of all the sufferings which the patient undergoes (i.e.) the signs and the changes of colour etc., (i.e.) and the symptoms described in the Chapter of Vrana (ulcer), not only in Vranas (ulcers) but also in all diseases attended with inflammation (Sarwa Sopha Vikareshu Vranavat Lakshayet Bhishak.) That is to say that the state of Vrana represents histologically and clinically all the changes which the diseased part undergoes, namely Sopha, Paaka and Vidradheebhaava and Vrana in every disease. A physician who studies the signs and symptoms of Vrana carefully understands all the morbid changes that take place in human body in all diseases in a general way, although they may differ according the cause, seat and variations of the Dosha vitiation.

It leaves a mark in the body as long as the body lasts. If the disease is cured before the 5th stage, Susrutha says that serious organic changes do not take place in the tissues or organs and that no scar is left in the deeper tissues or in the skin. Resolution is effected so that the tissues that are lost are re-formed.

DOSHA PAAKA AND DHAATU PAAKA

During the various stages of inflammation, Paaka is taking place in Doshas and Dhaatus.

(1) Paaka in the Doshas, is called the Doshapaaka and (2) Paaka in the Dhaatus, is called the Daatu paaka.

1. Dosha Paaka helps to restore the equilibrium of the Doshas and is therefore good. Dosha Paaka is also called Mala Paaka, because the Doshas are considered as malas when they are vitiated.

2. Dhaatu Paaka tends more and more to destroy the tissues and is therefore not desirable. The more the Dhaatu Paaka, the more the destruction of the living tissues. Our efforts should therefore be to promote Dosha Paaka, i. e., to bring back the Doshaas to the normal stage, so as to prevent Dhaatu Paaka or destruction of tissues by the vitiated Doshas or toxins.

Dosha Paaka includes all the bio-chemical changes that take place in the body, which bring about the normal condition.

Dhaatu Paaka, on the other hand, represents the sum total of all the pathological changes that take place in the body, which result in the destruction or the degeneration of the vital tissues, i. e., the essential components of the living body. This may result in death.

Dosha Paaka is a favourable change caused by the immunity which is exhibited in a patient, eventually leading to his recovery.

Promotion of strength, proper functioning of the five senses, restoration and increase of digestive power and a craving for food, general decrease of thirst and such other symptoms that torment the patient, mildness of fever (tendency to gradual decline of fever)—these symptoms indicate Dosha Paaka and impending recovery. The normal condition of the vitiated Dosha (Dosha Prakriti vaisadyam) and lightness of the body are indicative of Dosha Paaka. (Yogaratraakaram-Jwara V. 103).

On the other hand, intense pain in the region of the heart and the navel (Hrit Naabhyor Madhye), diarrhoea, very high fever, debility (Klama), thirst, and intense Dyspnoea (Swaasaathikyam), Anorexia (Arochaka), Restlessness (Arati) these symptoms are indicative of impending Dhaatu Paaka. So also, lack of symptoms, which point to Dosha Paaka is indicative of Dhaatu Paaka. In addition to these symptoms, one test by palpation (feeling by touch) has been suggested. If much pain (or tenderness) is felt by the patient on pressure by the physician's hand over the region between the heart and the navel it should be understood that there is a tendency towards Dhaatupaaka. These changes are more clearly indicated in Jwaraas such as typhoid fever.

*Naabeh Oordhwam Hrido, Adhastat Feedite chet
Vyadhaa Bhavet, Dhato Paakam Vijaaneeyat Anyadhas
Mala Samchayam.* (Yogaratraakara)

In short, symptoms indicating Dosha Paaka usually herald a favourable prognosis, whereas symptoms indicating Dhaatu Paaka herald unfavourable prognosis.

The characteristic symptoms of Dosha Paaka and Dhaatu Paaka are clearly given in Ayurvedic texts.

THREE STAGES OF INFLAMMATION

It will be noted that clinically the six stages of Kriyaakaalas are again grouped into three stages for greater facility of treatment.

1. The Aama stage.
2. The Pachyamaana stage and
3. The Pakva stage.

Taking, for example, the various changes that take place in the formation of an abscess, the three stages are recognised as follows:-

1. *The Aama Stage*-the first or unripe stage presents the following symptoms:-

- (a) The skin is swollen but it retains its natural hue.
- (b) It is marked by little pain and slight heat inside.
- (c) The surface is cold, hard and slightly elevated.

2. *Pachyamaana stage*:-The intermediate stage.

- (a) Stage in which suppuration is in progress.

(b) It is marked by a sensation of pricking pain as if pricked by needles or bitten or wandered over by a host of ants or pain as if cut with a knife, pierced with a spear, thrashed with a club or pressed with the hand or jammed with fingers or burned with fire or an alkali.

(c) The patient complains of a sensation of heat as if burned all over the body by fire (Osha), a sensation or burning locally (Chosha Praadesika santaadam), an intense burning (paridaaha) all round of fixed or shifting character.

(d) The patient does not feel any comfort in any place or position, as if stung by a scorpion. The swelling goes on increasing like an inflated bag. The colour of the skin is altered. There may be fever, thirst, a burning sensation all over the body and aversion for food. (Principles of Pathology pp. 76-77) The symptoms vary according to the predominance of the Doshaas. Pain is due to vaata, burning is due to pitta and pus formation as due to kapha.

Vaatatrite Naste Ruja.

(3) *Pakwa stage*- (the mature or suppurated stage). The symptoms characteristic of this stage are an amelioration of the local pain and a pale colour of the skin. The skin becomes loose and thereby forms wrinkles. The swelling exhibits fluctuation under pressure. Moreover, it yields to pressure and reaches its former height when the pressure is removed. The pus or suppurated matter changes its place or shifts from one part of the swelling to another part under pressure, i. e. like water in a leather bag (Aadhmaata Vaatitwam). The distressing symptoms gradually subside. The patient again evinces a desire for food. He feels a constant inclination for scratching the part which is characterised by a sort of itching pain.

The symptoms similar to those described in Aama, Pachyamaana and Pakwa stages are noticed in every disease attended with inflammation and therefore a wise physician has to study them very carefully.

*Aamam cha Pachyamaanam Cha
Samanyak Pakwam Cha Yo Bhishak
Jaaneeyat Sa Bhavet Vaidyah
Seshaah Taskara Vrittayah*

(Susruta Sutra-ch. 15)

Susruta emphatically and very aptly says that 'a physician who is fully conversant with the symptoms of Aama, pachyamaana and pakwa stages, which are respectively exhibited in different diseases is alone worthy of the epithet "Vaidya" i. e., a wise physician. The others may be called thieves in the form of vaidyas.

The six Kriyaakaalaas are better understood if the manifestations of the Aama, Pachyamaana and Pakwa stages of every disease are carefully noted as in a vrana.

*Sarva Sopha Vikareshu
Vranavat Lekshayat Budhaih.*

For instance, in the case of pneumonia, the stage of accumulation is the Samchaya stage. It more or less resembles the Aama stage. The Prakopa, Prasara and Sthaanasamsraya stages blend into the Pachyamaana stage and vyakti or vyadhi darsana stage corresponds to the stage of the full manifestations of the symptoms of pneumonia. As in pneumonia, so also in the case of most of the fevers, the three stages may be definitely recognised and described (See Charaka—Aama Jwara, Pachyamaana jwara and Niraama Jwara—Charaka chikitsa—Ch. 3. V. 133-137).

Symptoms of Aama Jwara: The symptoms of Aama Jwara are as follows:—

1. Disgust for food, incapacity to digest, heaviness of stomach.
2. Unhealthy condition of the chest.
3. Drowsiness, sloth.
4. Absence of intermission of the fever.
5. Non-escape of Doshaas in the normal state i. e., wind, bile and phelgm.
6. Excessive secretion of saliva.
7. Nausea, loss of appetite, filthiness of the mouth.
8. Stupor, loss of feeling of touch and heaviness of body.
9. Copiousness of urine.
10. Presence of undigested matter in the stools &
11. Cheerlessness (Glaani)

SYMPTOMS OF PACHYAMAANA—RIPENING—FEVER

1. Acuteness of fever,
2. Increase of thirst, delirium.
3. Rapid breathing.
4. Giddiness.
5. Discharge of stools, urine & sweat and
6. Belchings.

SYMPTOMS OF PAKWA—RIPE—FEVER

1. Hunger.
2. Weakness (Kshaamata)
3. Lightness of limbs.
4. Mildness of fever.
5. Aanulomya of Doshaas—Downward trend of disease.

In the Sannipaata fever, however, the fever does not ripen for two or three weeks, so also in septic fevers, it may take a much longer time. These fevers are treated as mature fevers, where Brimhana treatment is recommended to the patient. It is the rule to starve the patient up to 7 days and to feed him up discriminately with light and nutritious diet gradually later. The treatment differs according to the degree of Aama persisting. If improper, i. e., heavy or rich, food is given to a fever patient in the Aama state, Ayurveda says, that it actually becomes like a poison—Visha—Aama visha which spreads rapidly in the body—kills of patient. For example, milk which is described as Amrita—Nectar—in a case of mature fever, is considered to convert itself into a poison—in Aama of Taruna jwara.

Tadeva Tarune Peetam Vishayat Hanti Maanavam (Susruta)

In Vaata and Niraama Jwaraas, milk is recommended as the best form of diet.

TWO KINDS OF AAMA DOSHA

There are two kinds of Aama Dosha—one pertaining to Rasa-dhaatu (Dwiwidaa Hi Saamataa Rasasya; Aparaa Doshaaya—Madhava Nidana, Vijayarakshita commentary.) The Aama pertaining to Dosha is got rid of, (of course, by judicious fasting) in the

course of eight days from its onset; the Aama Dosha pertaining to Rasa Dhaatu may continue to exist still further.

Taruna Saamataa Ashtaahaat Aapatti

Rasa Saamyata Tu Paratopi Anuvartate (Vijayarakshita)

The point here is that even medicine is forbidden in Aama pertaining to the Doshas, whereas administration of suitable medicines is allowed in the Aama Dosha pertaining to Rasadhaatu. Thus, in certain cases of Jwara (may be Sannipaata Jwara) Aama Dosha may still exist clinging to the Rasa Dhaatu even after eight days. Till the whole of Aama Dosha is resolved the Jwara is not termed as 'Niraama Jwara'.

In certain cases, it may be difficult to ascertain the existence of Aama Doshas, when it is slight, but it is necessary to ascertain even this, as the administration of foods like milk, meat juice etc., depends on such considerations.

CONCLUSION

The Aama condition indicates an immature stage of disease, where excess of moisture-Kleda-or a water-logged condition of the tissues exists, the treatment consists essentially in getting rid of the moisture by Langhana or fasting treatment, by light, dry foods, regulated physical exercises and open air etc., and by medicines which increase the digestive power. In very serious cases of Aama-vitiation, even medicines are prohibited, because they also require the power of digestion. If, instead of the fasting treatment, the opposite treatment namely, the Brimhana treatment, is given, the cases become definitely worse and sometimes very dangerous.

Aama is generally associated with Kapha Dosha. But it may also exist in association with vitiated pitta and vaata. In all these instances the treatment given should primarily be directed to removing the Aama condition before either dosha vipareeta or vyaadhi vipareeta treatment is attempted. This is particularly to be noted in the treatment of such diseases like certain fevers, Diarrhoea, Rheumatism etc. where the Aama condition is the root cause of the disease.

INDEX

	PAGE		PAGE
A			
Aahaara Sakti-Capacity for food	III 110	Amla Rasa — Identification and properties	I 137
Aakaasa Sakti	I 134	Amputations	II 105
Aakriti—General condition and appearance	III 78	Anaesthesia and Surgical operations	II 125
Aama and its importance	IV 221	Antaka Sannipata	IV 141
Aama associated with Vaayu		Antarvega	IV 146
Pitta and Kapha Symptoms of	IV 226	Antidotes for Excessive Brimhana treatment	I 8
Aama—Causes of Production	IV 225	Antidotes for excessive langhana	I 14
Aama Dosha & Aama Visha	IV 222	Antiseptics in Aayurveda	II 7
Aama Elimination of	IV 229	Antiseptic Precautions	II 128
Aama Jwara	IV 146	Anubandha — continuity of Life	III 83
Aama—Its importance in Aayurvedic Survey	IV 213	Anusastraas	II 110
Aap State	I 135	Anuvaasana Vasti Fevers	IV 162
Aapta Vaakya — acknowledged testimony	I 160	Anuvaasana Vasti	I 63
Aasura Sattwa — Demon Disposition	III 108	Anyadushka Jwara	IV 139
Aayurvedic Pharmacology	I 133	Application of Leeches	II 117
Aayurvedic Treatment (Review)	IV 230	Arishtas — Symptoms foreboding death	III 119
Abhicharaja — Disorder of Semen	II 45	Art can be learnt even by the illiterate	II 3
Abhyasa — continued practice	III 40	Ashtaanga Maidhunam	II 95
Abhinyasa	IV 142	Ashtashthana Pareeksha	III 31
Abhyanga	IV 203	Asoka	II 104, 107
Adaksha Purushotpannam	II 96, 137	Asrigdhara (Menorrhagia)	II 63
Agantu Jwara	IV 176	Asthisaara (Strength of Bone)	III 95
Agantu Jwara — Medicines Useful in	IV 201	Audumbara Thailam	II 80
Agantu Jwara caused by Visha (Poison)	IV 137	Avapeedana Nasya	I 77
Agantu Jwara caused by Lust etc.	IV 137	Avasaadi — disorder of semen	II 45
Agnikarma or Cauterisation	II 116	Ayoga — Insufficient dose of Emetic	I 48
Agni State	I 134	Ayurvedic Physician, List of	II 18
Albumin	III 59	B	
		Bahiparimaarjanam	I 91
		Bahirvega	IV 146

	PAGE		PAGE
Balaa Thallam	II 77	Conditions suitable for Virechan	I 57
Basavaraja	IV 140	Conditions where Swedakarma	is forbidden I 35
Bhagaarsas	II 81	Classification of Suka Dosha	II 49
Bhoja (King)	II 125, 128	Colour of urine	III 55
Bhimala Charan Law	II 101	Concentration of Mind essential	III 1
Bhoja Prabandha	II 128	Conception of Health and disease	III 2
Bhore Committee Report	I 17	Conception period (Ritu Kala)	II 88
Beaumont	II 211	Consistency and density urine	III 57
Best Time for examining the Pulse	III 51	Conducting Normal labour	II 5
Bhugnanetra Sannipata	IV 142	Contents of the Kits Daayees	II 16
Bile in Urine	III 60	Control of high temperature	IV 171
Bimbissara	II 129	Cooked vegetables in Fever	IV 190
Blood Letting	II 117		
Bodily diseases—classification of	I 105	D	
Book knowledge not very helpful	III 40	Daadimaamalaka Yoosha	IV 188
Braahma Kaaya — Brahma Dis-position	III 106	Dais—Encouragement of	II 16
Breast Milk	IV 193	Daivaajjaatham	II 97
Brihat Sathaavaari Ghritham	II 79	Daivavyapaasraya Treatment	I 116
Brimhana Nasya	I 77	Dalhana	II 103, IV 178
Brimhana Substance	I 7	Dasavidha Pareeksha — Ten points for investigation	III 78
Brimhana Treatment	I 7	Definition of Ashtaastana Pareeksha	III 32
Buddha	II 129	Definition of Poorvaroopo	III 16
Buttermilk	IV 191	Do. of Sthambhana Karma	I 53
		Do. of Vamana Karma	I 40
C		Deposit—Urine	III 58
Celibacy Errors of Sex Denials	II 81	Deranged Aarthavam	II 62
Central Nervous System	II 131	Derangement of Doshas	III 7
Chakradatta	II 111	Derangement of Fat; causes & Symptoms and treatment	II 61
Chakrapani	I 102, II 103	Derangements of Aatavam—Treatment of	II 62
Chanakyaaoosha	IV 188	Desa—Habitat and Seat of diseases	84
Channels (Srotases)	I 97	Desa Saatmya	III 101
Charaka	I 4, 39, 43, 47, 49, 50, 62, 138, 141 and 157	Development of Sukradhatu (Semen)	II 29
	II 43, 107, 111, 112, 113, 114 & 125	Dhaati and Daayi	II 2
	III 1, 32, 33, 34, 76, 81, 101, 104, 119, 125, 126, 156	Dhaatugata Jwaras — Treatment of	IV 184
	IV 132, 139, 142, 157, 214, 217, 225, 21, 225	Dhatu paaka	IV 148, 237
Charles Dr. (Colonel)	II 104	Dhoomapaana	I 81
Chatterji	II 58	Dhoomapaana after Emetic	I 48
Chemical examination of the Urine	II 59		
Child births in a Harijan colony	II 10		
Children Examination of	III 99		
Chittavibhrama	IV 141		
Coconut water	IV 193		
Complications of Typhoid	Fever		
	IV 175		

	PAGE		PAGE
Diagnosis by Experimental treatment	III 23	E	
Diagnosis—importance of	III 1	Etiology and Symptoms of eight defects of vitiated semen	II 42
Diet in Virechana	II 76	Effects of Unsatisfactory love life	II 96
Diet in Virechana	I 57	Ekendranath Ghosh	III 53
Diet after Emetic	I 49	Emetic and Vamana Karmas —difference between—	
Diet in Jwara	IV 158	administration of	I 41
Dietary in Jwara	IV 184	Emetic Excessive use of	II 48
Diet in Snehakarma	I 18	Emetic to be unpleasant and Purgative to be pleasant	I 44
Different methods of investigation	III 6	Emetic in Rasaayana Treatment	I 52
Deligent study essential	IV 176	Emetics and Purgative by mere smell	I 39
Dim Vision	II 137	Emetic in Fevers	IV 160
Disease, six stages in the course of	III 29	Epilepsy	II 135, 137
Disease fit for Vamana Karma	I 50	Erogenous zones and their significance in Woman's Love Life	II 93
Disease in which Dhoomapaana in useful	I 84	Evidence of existence (of books)	II 103
Diseases of the male organ	II 47	Evil effects of sexual abuses	II 84
Diseases unfit for Vamana Karma	I 51	Examine the man as a whole	III 44
Diseases where Sweda Karma is useful	I 34	Examination of voice—Sabda Pareeksha	III 72
Dislike for Maternity Homes	II 12	Examples of Dravyaas containing six Rasaas	II 143
Disorders of semen—causes of	II 43	Excessive Brimhana Treatment —Disadvantages of	I 8
Disorders resulting from improper administration of Vamana and Virechana Karmaas	I 58	Expectation of life not altogether pre-determined	III 116
Divaa—Swapna—Saat, yata	III 103	External and Internal causes	III 10
Donovan Col, I.M.S.	III 56	F	
Dooshya	IV 208	Fasting Treatment	IV 172
Dose of Snehaas	I 17	Fehling's Test	II 60
Doshapaaka and Dhaatupaaka	IV 148, 237	Fever Allopathic treatment of	IV 213
Dosha Pratyaneeka Chikitsa	I 122	Fevers Allopathic classification of	IV 211
Doshaas	IV 208	Fevers classification of	IV 215
Doshas—causes of vitiation—direct cause of disease and of both	III 9	Fit for Dhoomapaana	I 82
Doshas pulled down from their own places	III 12	Fit for Kavalagraha	I 86
Drugs advocated for Vamana Karma—drug-harm by the use of a conscious instance	IV 174	Five Medical Operations in Ayurveda	I 1
Drugs used as purgatives	I 55	Forms of Sweda Karma	I 27
Drugs used for Dhoomalana	I 83	Foetal position and presentation	II 8
Drugs used for Gandoosha	I 85	Four categories of Powers (Prabhaavaas)	I 153
Drugs used in Jwara	IV 194		
Druk Eyes	III 76		
Dwajabhanga — Symptoms of	II 37		

	PAGE		PAGE
Four Nurses to one child birth	II 2	Injuries of the bones—Fractures and Dislocations	II 123
Four Uaata Mehas	II 63	Immature and Mature Doshas	III 14
Full implications of the word wara	IV 214	Importance of a thorough examination	III 79
Fundamental Principles of Midwifery	II 8	Importance of Nasya Karma	I 73
G		Importance of Studying Poorvaroopas	III 16
Gandharva Kaaya—Gandharva Disposition	III 107	Importance of Sweda and Sneha in chronic disease	I 36
Gandoosha and Kavalagraha	I 84	Importance of Vasti Karma	I 62
Garbhaadhaana Ceremony of	II 91	Importance of Vipaka, Veerya and Prabhaava	I 155
General and special contributions of Rasaas and Doshaas	I 149	Important drugs	I 126
General results for Sneha Paana	I 20	Important note (in treatment of Malarial Fever)	IV 183
Ghee	IV 193	Impotence due to Dhvajabhanga	II 40
Gruels and medicated ghee use of	IV 173	Impotence—Treatment in detail (Visesha) of	II 40
H		Impotence due to waste or abuse (Sukra Kshaya) due to	II 38
Hale White's Materia Medica	I 40	Impotence which arises due to (Jaraa Sambhaivam) old age	II 37
Health Progeny in Aayurveda comprehensive and straight forward analysis of	II 22	Impotency in Women	II 59
Headache	II 137	Impotency of Treatment in brief of	II 29
Head Injuries and Tumours	II 129	Incompatible correlation, faulty understanding and seasonal factors	III 8
Hethu and Symptoms in Bhijaapaghaataja Klibyam	II 35	Individual constitution—Prakriti	III 88
Hoernle	II 113	Indriyas	III 120
Hospitals and their equipment	II 107	Ineffective Vamana Karma	I 59
Hot or cold water to drink in Jwara	III 159	Ineffective Virechana Karma	I 59
How does the Emetic Act	I 47	Inflammation clinical classification of	IV 233
Human Body	I 95	Instruments	II, III 128
Human effort essential	III 115	Internal causes Aabhyantara	III 11
Hypertension	II 133	Nidan	III 31
I		Introduction Ashta Staana Pareeksha	III 31
Identification and Properties of Tikta Rasa (bitter taste)	I 139	Do. Jwara (Fevers)	IV 131
Identification of Lavana Rasa and its properties	I 138	Do. Surgery in Ayurveda	III 102
Identification of properties of Kashaaya Rasa	I 139	Is Sukram present in woman—Have they got impotency	II 59
Immediate remote weak and patent causes	III 7	J	
		Jaati Saatmya	III 102
		Jacobi	II 125
		Jatharaagni—Digestive Fire	IV 222
		Jeevaka	II 104, 129

	PAGE		PAGE
Jihva the tongue	III 69	Kinds of Dosha Derangement	III 11
Jwara (Fevers)	IV 131	Doshas pulled from their places	12
Jwara (Agantu Medicines Useful in)	IV 201	Kshaya decrease of Doshas	13
Jwara—Definition of	IV 132	Mature and Immature doshas	14
Jwara—Kapha in	IV 198	Movement into Koshta, Saakhaas and Marmaashni Sandhees	13
Jwara lodged in Asthidhatu—Symptoms of	IV 144	Principal and Subordinate Doshas	12
Jwara lodged in Sukradhatu—symptoms	IV 145	Seasonal and unseasonal Doshas	11
Jwara—Pitta in	IV 197	Staanam—keeping in Normal measure and seat	13
Jwara—Pitta Sleshma in	IV 200	Temperamental and Anti-temperamental Doshas	12
Jwara—Samprapti of	IV 132	Vridhi—Increase of Doshas	13
Jwara—Sannipata in	IV 200	King of Egypt	II 129
Jwara—Vaata in	IV 197	Kleebatvam (varieties of Impotence)	II 35
Jwara—Vaata Pitta in	IV 199	Knowledge of Anatomy of the Hindu Surgeons	II 111
Jwaras—Antervega and Bahirvega of	IV 145	Koshtas (Bowels) three kinds of (Mrudu), Kroora and Madhya	I 56
Jwaras—Dwandwa and Sannipata Types of	IV 136	Koubhera Kaya—Kubera disposition	III 107
Jwaras lodged in Maamsadhatu symptoms of	IV 144	Kulutha Yoosha	IV 188
Jwaras lodged in Medhodhatu symptoms of	IV 144	Kumaaryaadi Vati	IV 181
Jwaras lodged in Rasadhatu symptoms of	IV 144	L	
K		Laaja Manda	IV 185
Kaala—climate and period of disease	III 84	Laaja Paaya	IV 185
Kaaranam—the physician	III 82	Lakshmipathi	II 1, 130
Kaasmaaryaadi Ghrita	II 78		IV 169, 230
Kaayam (confection)	II 12	Langhana substances or measures	I 10
Kaaryaphalam resulting happiness	III 83	Langhana performance of Treatment	I 10
Kaaryayonee—Derangement of Disease	III 83	Upavaasa—actual fasting	I 13
Kaarya—Equilibrium of the Doshas	III 83	Light food in small quantity and at proper time—for diet in fever	IV 194
Kalpa Pulse	III 43	Limited and unlimited expectation of life	III 113
Kanthi Kubja	IV 141	Line of treatment	I 109
Kapha Jwara—Medicines useful in	IV 108	Linga Arsas	II 49, 58
Kapha vitiated Semen	II 44	Lithotomic operations	II 105
Kapha Prakriti	III 90	M	
Kapha Temperament	III 109	Majja Saara (Strength of marrow)	III 95
Kaphaja Pradara	II 64	Mala Pareeksha	III 67
Kaphaja types—symptoms of diseases of the male organ	II 48		
Kaphaja types—symptoms of diseases of women	II 74		
Kaphaja Upadamsa Treatment of	II 53		
Karanam — Medical Treatment	III 82		
Karnika Sannipata	IV 141		

	PAGE		PAGE
Malaria Treatment	IV 180	N	
Man with Satsanthaanam (good progeny)	II 24	Naadi—the pulse	III 34
Manda	IV 185	Nasya in fevers	IV 162
Marsdens translation — Cancer of breastvepearne	II 115	Nasya Karma	I 73
Masoor and Aadhaakee		Nature of Aama	IV 222
Yoosha	IV 188	Necessity of Sneha and Karmaas	I 42
Maternity Home	II 4	(Neuro) Brain surgery and Aayurveda	II 128
Mathura Rasa—Identification	I 137	Neuro surgery	II 130
Measures which ripen doshas	II 159	New scheme (for training daayees)	II 13
Medasaara (strength of Medas—fat)	III 96	Nidaana	III 4; IV 208
Medicines in Fevers	IV 195	Nidaana—cause of disease	III 7
Medicines useful in Vishama Jwara	IV 196	Nidaana of Dwajabhanga	II 36
Meemaamsa (strength of Maamsa—flesh)	III 96	Nija and Aagantuka causes	III 15
Meeting vital problems of healthy progeny	II 22	Nimba Yoosha (in fever)	IV 189
Mehendra Kaaya—Indra disposition	III 106	Nirama jwara—treatment of	IV 160
Menstruation period of	II 87	Niragni Sweda Karma (sweating without fire)	I 33
Method of Examination	III 65	Niama jwara	IV 147
Mental approach—Superiority of Ayurveda	II 9	Nirgundi Kashaayam	IV 183
Mental changes to be noted by Village Vaidya	II 139	Nirooha Vasti	I 66
Mental diseases	II 135	Niruddha Prakasa treatment of	II 57
Mental diseases classification of	I 103	No serious Antagonism (between Ayurveda and Allopathy)	IV 175
Midwifery	II 106	Nurses mentioned in Vedas	II 1
Midwifery in Ayurveda	II 1		
Midwifery as traditional art	II 3	O	
Milk in fever	IV 192	Object of medical treatment	I 100
Minimum time required for examining the pulse	III 52	Object of studying the pulse	III 37
Minor operations	I 86	Obstruction to vomiting and purging	I 60
Mode of administration of Virechana	I 55	Odour of urine	III 53
Modern conception of fever and its Ayurvedic Survey	IV 210	Oil test for urine	III 64
Modern hospital—the last resort	II 13	Oka—Saatnya	III 102
Mootra Pareeksha	III 54	Oka Saatnya or Abhyaasa Saatnya	III 104
Movements into Koshta, Saa-khaas—and Marmaasthi Sandhees	III 13	Oneness of disease and oneness of treatment	I 106
Mudga Yoosha (in fever)	IV 187	Ophthalmic Surgery	II 109
Mudgaamalaka Yoosha (in fever)	IV 187	Other purefactory measures in Ayurveda	I 81
My own treatment (in typhoid fever)	IV 170		
		P	
		Paachana—Digestive	I 12
		Pachyama jwara	IV 147
		Pachyamaana — Ripening fever	IV 241
		symptoms of	IV 241
		Pain (in brain diseases)	II 135

	PAGE		PAGE
Paisacha Kaaya Devil disposition	III 108	Pittaja type symptoms of Upadamsa	II 48
Pakwa—Ripe fever symptoms of	IV 241	Pittaja types symptoms of diseases of woman	II 74
Panchabhootaagnis and Dhaat-wagnis	IV 223	Pittaja Upadamsa treatment of	II 53
Pancha Karmas	I 1, 4	Poorvaroopaa	III 4, 16
Panchalakshana Nidhaana	III 3	Prabhaava	I 159
Panchamushtika (in fever)	IV 190	Pradara	II 63, 66
Panchatiktha Quatha choorham	IV 182	Pradeha	I 9
Paanini	II 103	Practice of Aayurveda	IV 210, 221
Paralysis	II 138	Pradara causes of in Susrutas —Kaumaara Bhritya Tantra	II 66
Parivartika (Phymosis)	II 51, 57	Pradara, signs of an incurable fatal case of	II 65
Parotitis (Karnamoolasotha)	IV 168	Pradara causes symptoms and treatment of	II 63
Past history (Midwifery in Ayurveda)	II 1	Prakrita and Vikrita jwaras	IV 145
Pasukaya — Brute disposition	III 109	Prakriti Sama Samavaaya	I 150
Pathology of fever	IV 217	Pralaapa	IV 142
Patient examination of	III 87	Pralepaka jwara	IV 140
Patient ten points for the study of	III 88	Pramaana	III 97
Patola Yoosha (in fevers)	IV 217	Prameha	III 61, 84
Peelu Paaka	I 150	Prameha causes of	III 64
Peripheral nervous system	II 133	Pravriti commencement of treatment	III 84
Personal appeal (registration and education of daayees)	II 21	Pre-existing and exciting causes	III 10
Persons fit for Brimhanam	I 8	Premonitory symptoms of jwara	IV 133
Persons fit for Rookshana	I 22	Present practice — (Midwifery in Ayurveda)	II 10
Persons fit for Rookshana Karma	I 22	Preta Sattwa ghost disposition	III 108
Persons fit for Sodhana—Langhana	I 12	Prevention of Prameha	III 54
Persons fit for Sthambhana—treatment	I 54	Price (F. W.)	IV 169
Persons suitable for Virechana—treatment	I 55	Principal and subordinate doshas	III 12
Pipaasa Nigraha	I 12	Principles of treatment of fever	IV 218
Pithara Paaka	I 149	Prithvee state	I 133
Pitta jwara causes and symptoms of	IV 134	Procedure (in Sneha and Sweda Karmas)	I 43
Pitta jwara medicines used in	IV 197	Procedure in dhoomapaana	I 83
Pitta Prakriti	III 91	Procedure on the first bridal day	II 92
Pitta Pulse	III 42	Procedure on the first bridal night	II 93
Pitta sleshma jwara medicines used in	IV 200	Process of sexual act	II 95
Pitta sleshma pulse	III 47	Prognosis determination of	I 108
Pitta temperament	III 109	Prognosis (in impotency)	II 39
Pitta vitiated semen	II 44	Prognosis in disorders of semen	II 45
Pitta yoni vyaapat treatment of	II 79	Prognosis in suka dosha	II 51
Pittaja Pradara	II 64		

	PAGE		PAGE
Seasonal and Unseasonal doshas		Srikantha Datta	II 103
Seetaanga Sannipaata	III 11	Srotas, Sira, Dhaamani and Naadi	III 34
Seetapoorva jwara and poorva jwara	IV 142	Stages of Sexual development	II 81
Selection of the Emetic	I 44	Sthambhana Karma	I 53
Selection of better half for action)	(Field II 24	Stools examination of	III 67
Semen deranged by Vaayu, Pitta and Kapha	II 44	Subba Rao Dr. D. Director of Public Health	II 13
Semen vitiated by Pitta and Kapha	II 44	Subba Rao Valluru	II 101
Semen vitiated by vaayu and kapha	II 44	Substances conductive to Rookshana	I 21
Semen vitiated by Vaayu and Pitta	II 44	Sudarsana choornam	IV 183
Shad Upakramaas	I 2	Sugar in urine	III 60
Shastras (instruments)	II 110	Suka dosha	II 49
Signs of an incurable fatal case of Pradara	II 65	Sukraasmaari	II 85
Signs of shuddhavrana	II 121	Sukra Saara (strength of seed)	III 95
Signs of unfavourable prognosis occurring in jwara	IV 148	Sukram in women	II 59
Six Kriya kaalaas or periods of treatment	IV 232	Summary Ayurvedic Treatment	I 130
Six Pitta Mehas	III 63	Summary of treatment of jwara	IV 151, 206
Six Rasaas	I 135	Surgery in Aayurveda	II 102
Sneha chikitsa	I 14	Sushruta II 89, 100, 108, 109, 111, 112, 113, 114, 125, 126, 127, 128	
Sneha Karma and Sweda Karma	I 5	Sushruta's enumeration and classification of diseases	II 73
Sneha Sweda and Rookshana Sweda Karmaas	I 23	Susruta I 3, 4, 5, 51, 62, 99, 141	
Sneha Sweda Karmaas	I 122	II 1, 2, 8, 60	
Snigdha and Rookshana Nasya	I 24	III 32, 33, 34, 110	
Snigdha and Rookshana Vasti	I 23	IV 133, 156, 193, 232, 237, 240	
Snigdha and Rookshana Vamana	I 23	Susruta includes Rakta Moksha in Panchakarmas	I 5
Snigdha and Rookshana Virechana	I 23	Sweda Karma	I 24
Sodhana prohibited in Saama conditions	I 112	Sweda Karma—Dangers of—Excess of	I 34
Some factors which determine the Prakritis	III 90	Sweda Karma in jwara	IV 159
Some specific types described by Basava Raju	IV 140	Sweda Karmas Susruta's classification of	I 33
Sores on the Penis (signa) treatment of	II 55	Sweda Karma Time and Place of	I 35
Soul Force (Aatma Sakti)	IV 209	Syllabus and duration of the course and registration of Daayees	II 15
Sound, sabda	III 72	Symptoms due to Malaas associated with Aama	IV 227
Sparsa, the sense of touch	III 73	Symptoms of proper and excessive sthambhana treatment	I 54
Special Prodromes of jwara	IV 133	Symptoms of excessive virechana and vamana	I 60
Special types of Sannipaata fever	IV 168	Symptoms of proper and improper Rookshana	I 22
Specific sannipaata jwaras	IV 140		

	PAGE		PAGE
Symptoms of relief of jwara	IV 150	Unknown Hereditary factor	III 39
Systematic treatment by Pancha Karmaas neglected	I 7	Upaaya—the ways and means	III 84
T		Upadamsam	II 47, 52
Tandrika (fever)	IV 140	Upadrasvas of jwara	IV 147
Taruna jwara Madhyama jwara		Upasaya	III 4, 23
Puraana jwara	IV 147	Upasaya is of six kinds	III 24
Things to avoid in Vamana Karma	I 52	Urine collection of	III 54
Things used for causing stham-bhanam	I 53	Urine examination of	III 54
Three conditions necessary for learning pulse	III 38	Usefulness of various Sweda Karmaas in various doshas	I 33
Three Dhaatus (Nutrients)	I 95	Uses of Langhana Treatment	I 13
Three factors contributing resistance to disease	IV 207	Uttara Vasti	I 71
Three Malaas	I 9	V	
Three Stages of Inflammation	IV 238	Vaagbhata	I 5
Three states in which the doshas exist	I 101		II 5, 102, 103, 112, 113, 114
Treatment by Faith	I 115		III 32
Treatment of Impotence due to senile decay and waste (Jaraa-sambhavaaja)	II 40		IV 157
Tridoshaja (yoni) types symptoms of	II 75	Vaaruna Kaaya Varuna Disposition	III 107
Tridoshaja Upadamsa	II 54	Vaata jwara medicines used in	IV 197
Triteeyaka jwara	IV 139	Vaata, Pitta and Kapha pulse	III 41
Twaksara (strength of Twak skin)	III 96	Vaata, Pitta jwara medicines used in	IV 199
Two factors determining expectation of life—Daivika Karma and Purushakaara	III 113	Vaata, Pitta and Kapha Sannipata types	IV 175
Two kinds of Poorvaroopas	III 18	Vaata, Pitta Pulse	III 46
Two kinds of Aama Dosha	IV 241	Vaata Prakriti	III 92
Two paramount urges of human being	II 99	Vaata Pulse	III 42
Types of jwara	IV 133	Vaata Sleshma jwara	IV 199
Typhoid fever treatment of	IV 169	Vaata Sleshma Pulse	III 46
U		Vaata temperament	III 109
Udaka Saatmya	III 102	Vaata vitiated semen	II 43
Ulcers and their treatment	II 120, 121	Vaataja Pradara	II 64
Unfit for Dhoomapaana	I 82	Vaataja type of upadamsa symptoms of	II 48
Unfit for Emetics	I 40	Vaataja types symptoms of women's diseases	II 73
Unfit for Nasya Karma	I 79	Vaatya Manda (Barley water)	IV 186
Unfit for Sneha	I 18	Vaayu state (of Panchabhootas)	I 135
U.N.I.C.E.F.	II 15	Vallala Pandit (author of Bhoja Prabandha)	II 125
		Value of modern sciences	III 126
		Vamana Karma	I 39
		Vamana Karma in fever	IV 157
		Vamana treatment now out of fashion	I 52

	PAGE		PAGE
Vamana Virechana Vyaapatti	I 58	Vyaayaama Sakti (Capacity for exertion)	III 111
Vanaspatya Kaaya plant disposition	III 109	Vyakta Rasa and Anu Rasa	I 144
Varieties of Langhana	I 11	W	
Varieties of movements of Doshas	III 13	Weder (Professor)	II 104
Varieties of Sneha	I 15	What a Village Vaidya can do for Brain disease	II 136
Varieties of Sweda karma	I 25	What is Beejam	II 27
Varieties of vasti Karma	I 76	What is Disease	II 98
Varieties in Pulse	III 52	Wheat in Fever	IV 191
Variation in the sense of taste	III 70	When Langhana is Prohibited	IV 154
Variations in complexion	III 74	Why left hand in women in reading the pulse	III 49
Various classification of specific types of fever	IV 138	Why Semen is not found in children	II 28
Various Vajeeekarana remedies of sexual incapacity	II 41	Why the Semen gets exhausted	II 33
Vasti Karma	I 61	Why three fingers, not one in reading the pulse	III 50
Vatabalaasaka jwara	IV 139	William Hunter	II 105
Vayas (Age)	III 112	Wise (Dr. Patent Ratan cane-splint)	II 104
Veerya	I 158	Woman Extra muscles of	II 67
Vegetable curries in Fever	IV 190	Women unfit for Sexual intercourse	II 78
Venkata Narayana Rao Dr. S.	II 103	Y	
Vijaya Rakshita	II 103	Yamaya Kaaya Yama disposition	III 107
Vikriti disease	III 73	Yantras (appliances)	II 109
Vikriti Vishama Sama vaaya	I 15	Yoga Science of	II 136
Vikriti Vihsama Samavata (Doshakrita jwaras)	IV 136	Yogic concentration	III 38
Vipaaka	I 156	Yoni Kandam	II 80
Virechana Karma	I 55	Yoni peculiar to Females (female-organs of generation)	Twenty diseases of
Virechana treatment now out of fashion	I 58	Yooshas with drugs in fever	III 189
Vishama jwara	IV 138, 204	Yuktivyapaasraya treatment	I 120
Vishama jwara and jeerna jwara	IV 202		
Vomiting	II 139		
Vridhdha Doshas Elimination of	I 101		
Vyaayaama and Maaruta treatment	I 12		
Vyaayama saatmya	III 102		

